

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

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EARTH IN THE RUINS OF A COMET

GIRL'S ADVENTURE REMARKABLE STORY OF A BOTTLE

Upsetting the Balance of the
Atmosphere

LIGHTNING AS A HEALER

Here is the story of a natural phenomenon reduced to an astonishing absurdity.

We have all seen children when they have drunk the contents of a ginger-beer bottle, suck out the air and allow their tongues to be drawn into the bottle neck. Well, a little girl did a similar thing the other day in London with an empty tin bottle which had contained metal polish. She sucked out the air, and her tongue was drawn in so tightly that she could not remove it.

Nobody could release her from her sorry plight, and the girl was taken to a hospital. Had it occurred to anyone to make a hole in the bottle at first, and so let in air, she might instantly have been released, but at the hospital, even when a doctor cut off the bottom of the tin, her tongue still held fast, for the flesh had swollen under pressure and could not be withdrawn. Eventually the bottle had to be sawn from top to bottom before the poor girl could be set free from it.

Toying With a Great Law

It was air pressure that was primarily responsible for the mishap. Air at sea level, although we do not feel it, presses upon us in the proportion of 15 pounds to the square inch, but as it presses equally in all directions, and there is air inside our bodies pressing outwards to resist the air pressing inwards, we do not feel it. There was the same pressure inside the bottle as outside until the little girl sucked out the air and created a vacuum, but when she did that the 15 pounds' pressure became operative, and her tongue was sucked with great force into the bottle neck.

Without knowing it, she was toying with a great natural law; she unconsciously removed the safeguard and upset the balance of the atmosphere.

Guiding the Lightning

The story brings to mind a picture of Lord Kelvin, experimenting in his laboratory with tin canisters, when another child's tongue was brought into relation with them. The tongue had a harmful growth upon it, but the doctor feared to operate. Lord Kelvin's cans contained lightning—electric current which had been attracted into them actually from thunderstorms in France, and at the doctor's request he used one of these cans of lightning as an electric apparatus, painlessly burned away the growth on the child's tongue, and cured the little sufferer.

There we have the difference: air, challenged by ignorance, is a menace to life; lightning, guided by skill, is the merciful healer.

He Led the Americans to Victory



General Pershing, the indomitable chief of the American Army in France, now home again after the great victory

ENEMY HERO

Government Sends a
German Home

HOW HE SAVED AN ENGLISH FLYING MAN

Private Bruckmann, of the 99th Infantry of the German Army, fought against us in Flanders. He was captured and brought to England, where he was put to work at an aviation camp.

Now, although the time has not yet come for German prisoners to be repatriated, Bruckmann has left the camp with colours flying, so to speak, and gone home to his Fatherland at the expense of the British Government and with the best wishes of every one who knows his record. What has happened is this.

A British airman was flying from the aerodrome at which the German soldier was working. Something went wrong in the air; there was a swift, mad descent; a crash to earth, and a fierce burst of flame and stifling fumes.

The aeroplane was on fire, burning with the horrible fury peculiar to ignited petrol. The airman was helpless, strapped in the pilot's seat.

Honoured by His Enemies

We all know how rapid and terrible such a fire is, and the fate of this poor officer seemed sealed, for there seemed no friend near enough to save him. But our enemy, Private Bruckmann, was there, and the German went gallantly to the rescue of his foe.

He plunged in through the suffocating smoke and raging furnace of fire. He scorned burns and blisters and faced asphyxiation, and with cool courage he released the tortured officer from his bonds and brought him out alive. He risked his own life to save the life of the Englishman.

It was a noble act, and its nobility has been fitly recognised. Bruckmann was forthwith released from his captivity. He was given a sum of money by the British Government; he was presented with a silver watch inscribed with the story of his fine deed; and he was taken back to Germany, a free man, honoured by his former enemies.

He set out to kill Englishmen; he has gone home from England with the goodwill of all who knew him.

BUILDING UP THE WILDERNESS

The wilderness left by the Germans in France and Belgium is slowly being restored. The area laid waste in France alone is six million acres, equal to Lancashire, Yorkshire, Cheshire, and Durham. Another million acres of forests have been destroyed.

Over a thousand miles of French railways have been restored since the Armistice, and about 4000 miles of roads. There are still 20,000 miles of roads to repair, and already half a million tons of road-making materials have been used. About 200 miles of canals have been restored to water traffic.

Ride on a Bull—Great Story from a Farm

Peggy Fisher, of Piltdown, Sussex, one of the workers on the land to whom the country owes so much for taking over the duties of men, has enrolled herself on the list of heroes by the rescue of her sweetheart, Thomas Marshall, from a dangerous bull.

A great hunter of wild animals, when asked which was the most dangerous animal in the world, said "A savage bull in an English farmyard." Probably he was right. As a rule wild animals will not attack those who do not molest them; and their chances of attack are few. The morose bull is an uncertain brute; and because he is familiar he gets many chances of indulging his sour and stubborn temper. He cannot be trusted. Sooner or later he may turn on his best friend when he finds that he has him at a disadvantage.

It was so with the Piltdown bull and Thomas Marshall. Marshall, while feed-

ing the animal, slipped and fell, and instantly the bull turned to gore him. The bull's methods of attack, especially in confined quarters, are deadly. In the open he will toss his victim; in his stall he will kneel on him and crush him, or gore him with more than a giant's strength.

If the cry of Marshall for help had not been heard by Peggy Fisher he would have been a dead man; but Peggy heard, rushed to the rescue, fearlessly tried to beat off the bull, and then, as a last resource, surprised him by springing on his back. That was so unexpected by the stupid animal that he turned from Marshall and galloped away to rid himself of his strange burden, whereupon Peggy slipped off, returned to her lover, and removed him to a place of safety, badly but not fatally injured.

The decorations of war have been awarded for many a less gallant deed.

RISING NATION OF THE BALKANS

Rumania and Its Story

LAND THAT SUFFERED UNDER A FOREIGN YOKE

By Our International Correspondent

The name Rumania takes us back to the origin of the Rumanian people. They are Romans.

In the mountains one can still find families descended from the Roman soldiers who were sent by the Emperor Trajan to colonise Dacia. They have a noble bearing. They look the stranger full in the eyes. The men are handsome, the women comely.

On the plains of Rumania the race is mixed, and neither so interesting nor so respectable. To understand what elements have gone to the making of these Rumanians we have only to notice the foreign words they use.

The basis of the language of Rumania is Latin, but there are Turkish words in it, and Greek and Hungarian and Russian words. For centuries the country which is now Rumania lay under foreign yokes, and Greeks, Turks, Hungarians, and Russians all left their mark upon it.

The Foreign Yoke

Efforts were made from time to time to free the land from the foreigner, but only in the middle of last century was it redeemed from the Turk, and not until now has the Austro-Hungarian grip upon territories inhabited by Rumanians been forced to yield.

The obstacle in the way of freedom for the Rumanians was their lack of unity. The gulf between the peasants and the boyars, as the men who owned most of the land were called, was hard to bridge. In 1848, the year of revolutions, some of the boyars in Moldavia, the northern part of the country, tried to start a rising. They were caught and beaten, but they escaped and did all they could to persuade the peasants to follow them against the Turks.

"How can you bear these aliens doing as they please in our country?" they asked. "See, they even dared to beat us!" That was not the way to talk to the peasants. They smiled. "Boyars beat us, Turks beat boyars," they said, and refused to budge. They disliked Turkish rule, but they had no wish to change it for the rule of the boyars, who got the better of them in every way.

What an Old Man Said

In return for letting a peasant family cultivate a small piece of land, the boyar had the right to make them work for him four days in the week. He could even shut them up on Sundays, so that they should not be able to run away. No wonder they distrusted him and his class.

When a Peasant Congress was called by the aristocracy in 1857, and the need for national unity explained, the feeling of the masses was put into words by an old man who said: "We can use the spade, the scythe, and the sickle, but you boyars can use the pen, which makes black white, and white black"; and when, to show the value of united effort, the chief boyar speaker told this old fellow to fetch a big stone, far too big for him, and then sent others, one after the other, to help him until they succeeded in rolling it, the comment was not at all what the speaker hoped for.

"That's all very well," the old man said, "but you didn't help. You only gave orders. That's what you boyars always have done, and always will."

March of Peasants

At last, however, the Rumanians did unite, and they got independence with a king of their own. Then began another struggle, the struggle of the peasants to get land enough to support their families. What they had feared came to pass. The boyars, the big land owners, gave orders still. They got

the benefits of freedom, but the peasant did not. The rulers of the country talked about the peasants' rights, and promised them land; but they did nothing.

In 1880 there was a march of peasants to Bucharest, the capital. It took them a month to get there, and, when they arrived, they got no satisfaction. In 1888 and in 1907 the peasants rose against the Government, and were suppressed with a cruel hand. After this something was done to increase the amount of land available for peasant cultivation, but not nearly enough.

Further promises have been made, but the people are still far from content.

Land to Live on

In a country which depends entirely on agriculture the demand for land is a demand to be allowed to live. In England there is plenty of work in cities. In Rumania there are no cities to compare with ours. The largest has only about 300,000 inhabitants. The manufactures of the country are few, and cannot absorb much labour. Making the earth yield her increase is, therefore, the only great Rumanian industry.

After the United States and Russia, in the order of lands which produce most grain, comes Rumania; but the advantage of this falls almost entirely to the big landowners. The peasants want more land so that they may share it.

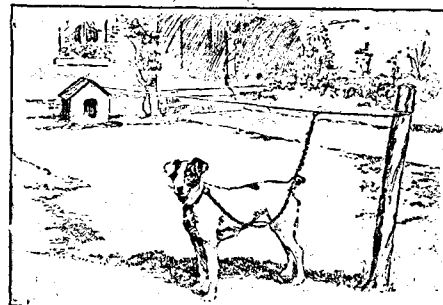
DOGGIE AND HIS MUZZLE

How to Give Him Liberty

The dog shows his kinship with wilder animals most of all by his love of liberty. He will welcome the friend who takes him for a walk in country places as warmly as he welcomes the master who owns and feeds him.

The muzzling restrictions, quite necessary though they are, are torturing dogs by keeping them in imprisonment. Beginning by hating a muzzle as a burden they cannot understand, dogs go on to greet it with pleasure when they know that putting it on means a jolly journey out of doors.

Many are now tied all day in kennels lest they should slip out unmuzzled and get their owners into trouble, but by a very simple device the life of the tied-up dog may be greatly brightened. This picture shows how to do it. Run a wire from the kennel to a firm post that allows a secure fastening, and by a running ring, through which the wire



Free Run for a Captive Dog

passes, attach the dog's collar to the wire between the kennel and the post.

Then your dog can have comparative freedom along the length of the wire, with exercise to suit his feelings, and not be such a sorrowful slave tied up closely by the neck. The freedom will greatly benefit his health and temper.

THE THREE BOOKS

One of the questions at an examination for entrance to a secondary school the other day was this:

What three books would you take with you if you were to spend the rest of your life on a desert island?

One of the answers to this question gave these three books:

1. The Children's Encyclopedia.
2. Robinson Crusoe.
3. Alice in Wonderland.

It seems an excellent choice, but one hopes it would be possible to post every month to the island a copy of My Magazine, which carries on the Children's Encyclopedia month by month.

EARTH AMID THE METEORS

The Path of a Lost Comet

WHERE TO LOOK FOR THE SHOOTING STARS

By Our Astronomical Correspondent

We should witness on Monday and Tuesday nights one of the best meteor displays seen during this year, for then the Earth will speed through the central mass of the so-called shooting stars.

They are called Perseids, because they appear to all radiate from a point within the group of stars called Perseus, which is just now low down in the north-east sky at nightfall, but gradually approaches towards overhead as night advances.

The meteors should be seen shooting across the sky from this point at intervals of a minute or two, the number increasing as night moves on towards morning. The Moon's light will, however, interfere with the visibility of the display.

A Hundred Streams of Meteors

Actually, these meteors have nothing whatever to do with the stars of Perseus, being as far away from them as our Earth is; but it happens that at this time of the year the track of this swarm of meteors crosses the path of the Earth, and the stars of Perseus are the far-off "background" from which the meteors appear to come as they meet the advancing earth. There are about a hundred other streams of meteors which the Earth meets from time to time, many of them annually, as in the case of the Perseids.

Now, the history of these meteor streams is very wonderful. Long ages ago the Perseids formed part of a celestial visitor from some far-off region of space, perhaps as far as Vega. This visitor came to us in the form of a glorious comet, which failed to return to its starting-place, owing to the disturbing attraction of one of the great planets, or perhaps the sun itself; and so it became part of our solar system, travelling on its long course—along an elliptical, or oval, track—between the Sun and some point far beyond Neptune, the outermost known planet.

Fragments of a Comet

This comet may have taken nearly a century or more to perform this long journey, but each return to the neighbourhood of our Sun gradually produced in it a state of exhaustion and disintegration. Much of its electrical energy, seen in the phenomenon of its radiant tail, became dispersed and dissipated along its path, which in time came to be strewn with myriads of its particles. Thus, disrupted more and more, its nucleus—the so-called head of the comet—lost its cohesion and parted asunder, portions broke away, or were thrown off as smaller comets. Finally, the whole degenerated into a long, unending trail of innumerable fragments, all swirling along on the invisible track once swept by a glorious comet.

The Earth will be on this track early next week, flying through the midst of these particles, the residue of this lost comet.

Will the Comet Return?

Of course, the process of the comet's disintegration is usually a very slow one, covering thousands of years, and involving many return visits to the fiery region of the Sun. In the case of the Perseids the astronomers discovered a singular thing. A brilliant comet appeared in 1862, and it was found that it travelled along the same path as that of the Perseid meteors. From this some astronomers believe that the comet which has produced these meteors is still existing, but it is in process of disintegration. When this comet of 1862 returns, as it may do in the next fifty years, the astronomers will be able to come to a definite conclusion, and we shall know whether the comet is lost or only in process of disintegration. G. F. M.

250 MILES OF COAL UNDER KENT

GREAT CHANGE THAT MUST COME

Will the White County Become a Black County?

FRANCE BUYS OUR COAL

Among the almost daily strikes of miners up and down Great Britain, when the country wants coal more than anything else, there appeared the other day the announcement—"Thirteen hundred miners out in Kent." "Coal mines in Kent! Why, Kent is a white county; there is no 'black country' there," said people who had once been to Dover and across to France, and so ought to know.

Yet the newspaper paragraphs about the strike looked quite definite. Three collieries were mentioned by name, and their whereabouts. The report looked what the lawyers call circumstantial. The most obstinate doubter, who had long felt that there could not be coal in Kent, must have had his prejudice shaken.

The plain facts are that under white Kent, with those Dover cliffs that have



The Coalfields of Kent

given our country the poetical name of Albion, or the White Land, deep down, below 900 feet of chalk, lies a black Kent, and through the chalk the shafts have been driven and coal is now being wound up at the three collieries of Snowdown, Tilmanstone, and Chislehurst.

More collieries are now being sunk, and still more will be sunk, for from near Canterbury, westward and southward to the sea and for four miles under the sea, over a wide area of 250 square miles, there is coal that is believed to be workable to a thickness of 25 feet, and capable of producing six thousand million tons for use before it is exhausted.

More than that, Kent has wide beds of iron-ore, and there is a probability that before very long its coal and iron, in such close connection with each other, will make it a great manufacturing county. Indeed, one of the mines sunk as a colliery is now sending only iron ore up its shaft.

While England Waits

Already villages are being planned for the workmen who will presently be developing these mineral resources under the chalk, and there is enthusiastic talk of what may be done when coal is used to generate electricity on the spot.

The Channel Tunnel may be driven under the sea to France by electric power made and stored from Kentish coal: the southern railways may be electrified; nay, why should not London itself be lighted and heated, and provided with mechanical power from the neighbour county of Kent?

It is no dream. It is well on its way towards accomplishment, and while English people are expressing surprise that there should be such a wonder as coal in Kent our bright French neighbours have come across the Channel and are taking time by the forelock and are buying up thousands of acres of the coalfield. We are a sure people, but slow, very slow.

INVISIBLE MASTER OF SPACE

NEWS OF THE WIRELESS WORLD THREE SECONDS TO THE MOON AND BACK

By Our Marconi House Correspondent

The greatest invisible power in man's control is wireless, master of distance and space, and the Children's Newspaper has appointed a correspondent at Marconi House to tell us what goes on in the marvellous wireless realm.

Wireless Music for Hospitals

An American wireless man has recently contrived what appears to be a specially compact form of wireless telephone for the use of sick people in bed. All that the invalid has to do is to attach a little metal clip to his bedrail; he can then listen to musical selections played several miles away.

Very probably the American War Department will provide a number of hospitals with this apparatus, and make arrangements for stories and newspaper articles to be "laid on," so that the wounded men may hear, instead of instrumental music, the sweet music of news from their home towns.

The Wireless Piano

Writing of wireless music reminds one of the famous wireless piano the Prince of Monaco had fitted on his private yacht. By pressing the keys of this piano the wireless signals, which sounded like a shrill whistle, were raised and lowered in tone, thus making it possible to play simple tunes.

I have heard him give his little concert in various parts of the world, and strange it was to hear it start suddenly while testing one's instruments in, say, the Balearic Islands. "Good morning, messieurs," came the message from the Straits of Gibraltar or Marseilles, followed by a quavering performance of the Marseillaise or "God Save the King."

Across the Earth in a Flash

Not long ago the great wireless station at Carnarvon, in Wales, got into touch with Sydney, in Australia. It is not possible to send a wireless message a greater distance than that on the surface of the earth, yet the time taken for it to reach Australia was so small that it could have travelled there and back seven times in one second. At that speed a journey to the moon and back would take less than three seconds.

Machine that Seems to Know

The growing increase in the manufacture of wireless apparatus has led to the invention of a wonderful machine for winding wire coils on bobbins.

Formerly this winding was done by hand, and it was a tiresome process, straining the eyes of the operator; but there is now a machine which winds miles of wire, with the extra layer of special material, automatically, without any attention from a human being. Moreover, if it comes across a kink or a knot or a place from which the covering of the wire has been torn, the machine stops working, and, by lighting little electric lamps, indicates which of these faults has occurred, and where.

Trees as Wireless Masts

Most people are familiar with the high poles from which the wires of wireless stations are hung. It is probable that we shall not need these expensive things in future, for the discovery has been made that we can use trees.

The great value of this discovery to soldiers and explorers is easy to see. Even travellers in the desert need not be cut off from civilisation for want of a wireless mast, because it is possible to receive messages on a long wire buried in the ground. In fact, modern receiving instruments are so sensitive that an aerial wire is not needed; one has only to connect them to some fairly large metallic object, such as a bedstead.

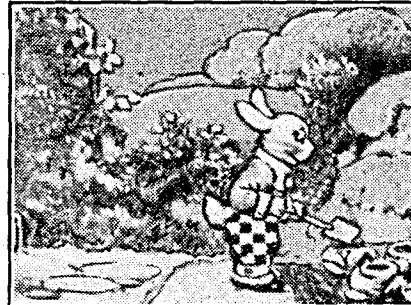
At Marconi House are receivers which will pick up messages hundreds of miles away, on a few yards of ordinary bell-wire wound round a box on the table.

UNCLE REMUS TELLS A STORY

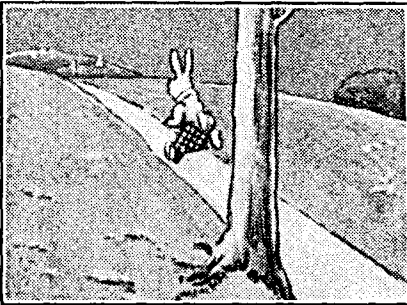
The Fable of Brer Rabbit and the Cow as Told in the Film Cartoons



"Let me tell you a story," said Uncle Remus



Brer Rabbit set out to get some milk for his children



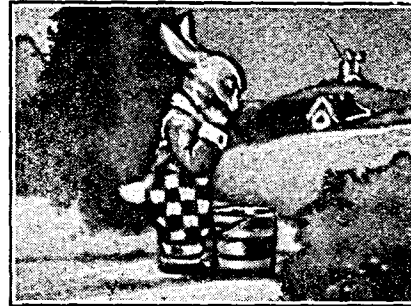
Here we see him on the trail



Presently he heard voices by the well



While they were busy Brer Rabbit crept up and carried off their pail



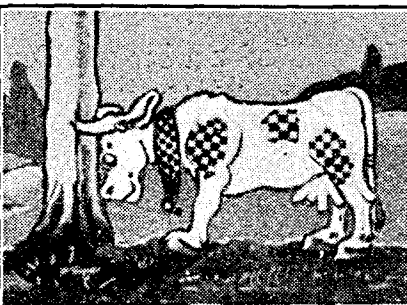
And then "he thought and wondered how He could with safety milk a cow"



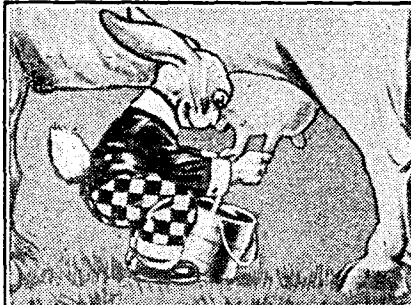
Old Mother Cow was browsing under the apple-tree



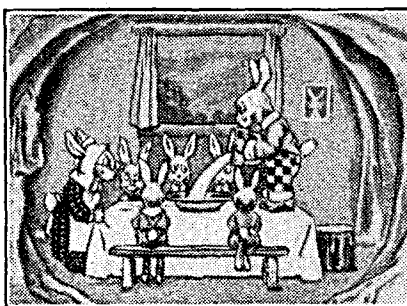
Brer Rabbit offers to show her how to get the apples



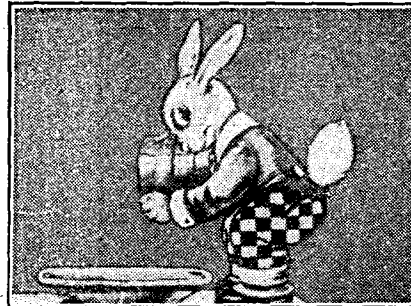
Butt the tree with all your might; The apples will fall down all right



When to the tree the cow stuck fast, With milk he filled the pail at last



Then he went home and gave the children a good supper



These animated cartoons are drawn by Anson Dyer for the Phillips Film Fable Stories

THE NEW LINERS

Five Times as Big as R 34

HOW WE SHALL RIDE ON THE CLOUDS

It took a hundred years to develop the first slow steamer into a passenger liner of 24 knots. It will take scarcely more than one year to develop R 34, the first ocean airship, into an aerial passenger liner five times as big, with a speed of 100 knots.

Such is the view of Brigadier-General Maitland, who arranged the transatlantic voyage of R 34 under Major Scott. General Maitland holds it is a practical certainty that, within one year or two, British airships will be regularly carrying passengers, mails, and cargo in 30-hour flights between England and America.

The giant airship possesses a supreme advantage over the leviathan steamship. Every increase in the speed of steamships is produced at an enormous additional running cost. Our fastest Cunard liners could not be worked without a loss unless they were subsidised by the State. On the other hand, the running cost of a British airship, carrying ten times the cargo of R 34, with a speed almost double, would be hardly any more than that of R 34. Indeed, General Maitland estimates that the running cost of an airship carrying 150 tons will be about the same as that of a dirigible carrying ten tons.

When the great routes are time-tabled it is calculated that times will be:

London to	Hours
New York	60
San Francisco	100
Cairo	36
Colombo	100
Australia	120
Cape Town	160
Rio de Janeiro	100

The new liners will have saloons rivalling those of the great steamships for comfort and luxury. As lightness is, of course, essential, it is probable that practically everything would be made of aluminium alloy, as strong as steel and one-third as heavy.

DERBYSHIRE OIL

And What it Contains

The last work done by Sir Boverton Redwood before he died was to make an analysis of the oil which has been "struck" at Hardstoft, in Derbyshire, and the results showed that it is wonderfully pure, which means that it is free from sulphur and contains good proportions of motor spirit and paraffin.

One hundred parts of the dark brown, peculiar smelling liquid now issuing from the earth at the rate of 400 gallons a day contains over 7 parts of motor spirit, 39 parts of paraffin, 20 parts of gas oil, 30 parts of lubricating oil, and 3 parts paraffin wax.

If the wells continue to produce good yields of this oil it will prove of enormous value to the country.

Every discovery of this kind has some corresponding drawback, and it is well known that it soon becomes impossible to live comfortably in oil-bearing districts. Fears are already being expressed by local people with knowledge of oil matter that their neighbourhood may become spoiled, and they are asking for arrangements to be made for them in case they have to move their homes!

ILL-MANNERED PICTURE HOUSES

A very healthy movement has been started by British film-makers against the use of vulgar language on films.

It is hoped that parents and teachers and children will all refuse to patronise picture-houses where proper care is not taken in this respect. We ought not to sit in public places where language is exhibited such as we would not tolerate in our homes, and complaints should be made in every case where stupid and vulgar and improper words are thrown on the screen.

WILD BEASTS COME TO TOWN New Inhabitants of London

STORIES OF QUEER CAPTIVE FRIENDS

From Our Correspondent at the London Zoo

A great attraction at the eagles' aviary at the London Zoo just now is the pair of young golden eagles that have just arrived from Scotland.

Although the species is becoming very rare in the British Isles, in other parts of the world it is found in considerable numbers. As a rule these eagles select a cleft on a high cliff as a nesting-place, but when such a site is unobtainable they will build in a tree or on a ledge on a steep river bank. The nest is usually composed of sticks, but in the Shetland Islands the birds frequently make use of seaweed owing to the difficulty of procuring more suitable material.

NO EYES, NO EARS, NO LEGS

A remarkable lizard from South Africa has just arrived at the Zoo. It is known as an amphisbaena, and resembles an enormous worm.

The creature has no legs or ears, and it is also quite blind, as its eyes are hidden beneath its skin. Amphisbaenas live underground, making long tunnels through the earth. Most of them feed on earthworms, but certain species dwell in the nests of ants, feeding on the insects as well as on their eggs.

They can move both backwards and forwards, a power which is of great service to them, as their burrows are much too narrow to enable them to turn round inside.

THE TURTLE OF THE SOUP

A green turtle, the only one of its kind at the Zoo, is now to be seen at the Reptile House. Although the living creature is not often seen at zoological gardens, it is familiar to everyone as the animal which provides us with the famous turtle soup.

When fully grown the green turtle weighs about 400 pounds, and is four feet long. It is found in the tropical seas, the majority of turtles in this country coming from the West Indies.

The young are hatched from eggs laid in holes which the mother digs out of the sand with her strong flippers. After covering up the eggs she takes no further interest in them, leaving them to be hatched by the heat from the sun. After an interval of a few weeks the baby turtles break out of their eggs, wriggle out of the sand, and walk straight into the sea.

BIRD'S HANGING NEST

Among the birds that have lately arrived at the Zoo is a Brazilian hanging-nest, a small but brilliantly coloured species with bright yellow and black plumage.

As suggested by its name, the bird builds a nest suspended from the branch of a tree. This is narrow at the top, and gradually increases in size as it extends downwards, the lower extremity being rounded off. Half-way up the side is a round hole through which the bird gains access to her curious dwelling.

A BIRD'S LITTLE PANTOMIME

The attractions of the waders' aviary have been added to by the addition of ten ruffs, birds that formerly nested in this country amid the marshes, but are now merely passing visitors.

In spring the males grow frills of feathers around their necks as well as a pair of upstanding ear tufts. When paying their attention to the reeves—as the hen birds are called—the ruffs act in the most comical manner, running sideways in circles around their mates, and suddenly stopping still with their bills resting on the ground and their feathers puffed out.

HOW TO FEED A MOSQUITO

Some yellow-fever mosquitoes have lately been added to the collection at the insect house. As their name im-

plies, these insects are responsible for carrying the germs of yellow fever and introducing the disease into the blood of human beings. Those at the Zoo, however, are free from the germs and quite harmless.

As mosquitoes feed only on the blood of other living creatures, the food-problem arose when they arrived at the Zoo, but the difficulty was soon solved, for the lady in charge of the insect house offered herself as a sacrifice to their appetite by placing her hand in their cage and allowing them to suck her blood. During this process the mosquitoes swell three or four times their normal size.

THE WORM THAT WILL BREAK

Three slow-worms, or blind-worms, have arrived.

Although quite a common creature in this country, it is an extremely interesting reptile, and belongs to that curious group of lizards that have no legs. In spite of its popular name, the slow-worm is neither slow nor is it blind. Its eyes, however, are very small.

When disturbed, the animal remains quite motionless and rigid, allowing a person to pick it up without showing signs of life. In this state its body is of a very brittle nature, and if the creature be roughly handled it will break in half. Its Latin name, "fragilis," refers to this curious feature. Slow-worms are very useful reptiles, owing to their feeding almost entirely upon slugs.

PRETENDING TO BE DEAD

Two Australian dingo dogs are among the new arrivals. In former days these beasts were very plentiful in their native haunts, but, owing to the large number of sheep and poultry they killed, the colonists were forced to protect their property and wage war against the dogs, with the result that the animals are now almost exterminated.

A remarkable habit of the dingo is that of shamming death if captured. When indulging in this form of deception the dog will endure agonies of pain without flinching. One writer records that a dingo was severely beaten with sticks until it was supposed that all its bones were broken and the beast was dead, but when its captors moved off, the animal got up and ran away.

Dingoes thrive well in captivity, and young ones have frequently been born at the Zoo. Although in a natural state they never bark, they readily learn to do so if brought up with domestic dogs.

A BIRD THAT EATS SNAKES

A new secretary bird is now to be seen at the ostrich house. This remarkable bird receives its name on account of the curious plume-like feathers that grow from its head, looking like a bunch of quill pens stuck behind its ear.

The species comes from Africa, and stands about four feet high. It feeds almost entirely on reptiles and insects, and regards snakes as special dainties.

When attacking a snake, the bird first strikes out at its prey with its wings, the knobby joints of which prove very efficient weapons. The bird then proceeds to kick at the snake with its long legs, and finally stamps on the reptile till its bones are broken and its body reduced to a pulpy mass.

KINEMA AND A SAINT

One of the most popular features of the religion of the Russian people is the veneration felt for the relics of saints preserved in the churches. The Bolsheviks, who appear to wish to uproot all the traditions the people hold dear, have now ordered the coffins of saints to be opened; and the coffin of St. Sergius, in Petrograd, has been opened, while kinema photographers took reels of the proceedings, and a huge crowd, wounded in spirit and fierce with anger, protested in vain.

WRITING FIVE NAMES AT ONCE

So many cheques have to be signed by Mr. Summers, cashier of the American Treasury, that he has had an arrangement made for signing five at once. Five pens are fixed to a metal movable arm, at the end of which is fixed a dummy pen. This is held in the hand, and as it is moved the five pens trace the signatures, exactly alike, on five cheques.

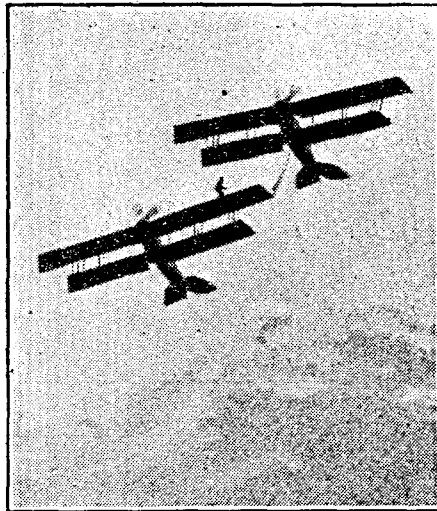
FEATS IN THE CLOUDS

Most Dangerous Thing Ever Done

LEAPING FROM PLANE TO PLANE

Flying is providing new thrills for the strange people who like to see other people risking their lives.

An American aeronaut, Lieut. Omar Locklear, has not only jumped from the wings of one aeroplane to another as they were passing each other a thousand feet above the earth, but he has snatched hold of a rope ladder, trailed from one machine as it passed over another, and climbed up the dangling ladder into the higher machine, while



Leaping from one Plane to Another

sensation-loving throngs of people joyfully shuddered below on the safe footing of Mother Earth.

The one scrap of usefulness in this act of cool and skilful daring is that it proves the bare possibility of a flying man being saved if his machine should take fire. Provided another plane were near, piloted by a skilful airman, who would risk igniting his own machine, a man who was a fine balancer, with a steady nerve, might conceivably pass from a burning plane to a plane that was not burning, and so be saved; but the chance of all these conditions ever being fulfilled is extremely small—so small, indeed, that its slender usefulness does not excuse men for risking life on the tricks that prove its possibility.

But evidently wisdom does not count in the presence of the lure of danger. Whatever is dangerous must be done if men are to prove themselves unafraid, and nothing more dangerous than the passage in mid-air from one machine to another has ever been conceived.

IMITATING NOISE

New Trick for a Picture-House

All kinds of instruments are used behind the stage in theatres and picture-shows to produce imitations of noises, such as the clattering of horses' hoofs, the entrance of a train into a station, and so on; and quite elaborate machines have been thought out to produce these noises.

Flight has made it necessary to invent still another one, and a new instrument has been produced to make a noise like an aeroplane. Two large discs are fitted together with partitions like a water-wheel, and holes about four inches apart are arranged round the circumference. While one man turns the "wheel" quickly round, another man pours a jet of compressed air against the holes, and the noise is exactly like that of the motor of an aeroplane in flight.

MILLION-YEAR OLD MOSQUITOES

An extinct species of mosquito has been discovered in Western Colorado, in eocene rocks which must be about two million years old. Various insects of the mosquito family have also been found in Colorado rocks of about the same age.

WOULD YOU LIKE TO FLY?

New Chance for Boys TERRITORIAL AIR FORCE

Lads from 14 years of age and upward may soon have a good chance of learning something of aircraft engineering, and some of them will be trained to fly in their holidays without cost to themselves.

General Trenchard, chief of the Royal Air Force, is planning a Territorial Air Force, to receive airmen who have left the Army and volunteers who wish to be trained in their spare time. Already one infantry battalion of London Territorials has opened an aircraft branch, in which boys from 14 to 20 can enlist for spare-time training as mechanical airmen.

The scheme will be developed on a national scale, and many lads who cannot afford to study aircraft or to learn to fly will be able to qualify in this new Force. Weekly instruction will be given at R.A.F. aerodromes, and in summer the Territorials will camp out.

It is expected that the new branch of Territorial service will be very popular. There is an abundance of training machines and ample training establishments, while instructors with battle experience are numbered in thousands.

AIR MAIL STAMPS

Busy Time for Collectors

Stamp collectors have had an exciting time since Europe began to break up into new states.

The historic stamp with the imprint "First Transatlantic Air Post, May, 1919," has been issued in a very small edition of 200. There is a three-cent stamp, with a caribou head, used on the first letters carried over the ocean; and for the coming Handley Page services a fifteen-cent stamp of the Cabot series has the words, "Transatlantic Air Post, 1919-1."

The Tunis aerial stamp is a 35-cent specimen, bearing an overprint of wings and the words, "Poste Aérienne." On the Swiss 50-cent stamp, for the flying mail between Zurich and Lausanne, there is printed a winged propeller.

For the French air post charges of 75 cents, 1 franc, and 1½ francs, there are being prepared black, blue, and red stamps, engraved with a portrait of Guynemer, the champion who fell in the war, and pictures of an aerodrome and an aeroplane. Belgium and the United States have a series of aerial postage stamps in preparation.

Meanwhile, the first complete Atlantic air mail, a small, white G.P.O. bag, containing letters posted in Newfoundland, was brought to London by Captain Alcock, the letters being delivered three days after leaving St. John's. £20 has been paid for the stamp of a letter brought by Hawker.

FRANCE'S AFRICAN EMPIRE

Opening It Up from the Sky

Morocco, the most backward of Mediterranean countries, is becoming the most enterprising in aerial services. More than 200 large Breguet machines will be used on air lines between the coast towns and inland places.

One reason for this great development is that the French Senate reports that fine work is being done by aircraft "in Northern Africa and the Sahara." Unexplored regions have been mapped by photography from the air, and new motor routes discovered.

Most of these routes are now being opened up by motor lorries and motor cars, and it is expected that important new lines of commerce will be quickly brought into operation. More and more the French regard their African empire as the finest of all fields for peaceful air work.

WORLD-MAP THIS WEEK—FIRST ELECTRIC CROSSING OF THE ATLANTIC

The history of the World Map this week brings together two famous men—Sir Walter Scott, the greatest story-teller in our English tongue, and Count Cavour, a statesman of United Italy. It brings together, also, two world-wide events—the completion of the first Atlantic cable, and the establishment of Greenwich Observatory, the time-centre of the world.

SIR Walter Scott, the greatest of all British novelists, an attractive poet, and a delightful man, was a lawyer and a local judge all his life, and only became famous as a writer when he was approaching middle age. Then he charmed the world with his romantic verse, and ten years later he redoubled the charm in his historical novels.

His writings made Scotland a land of pilgrimage for people from all the world.

Sir Walter Scott was, as a man, all that we could wish and expect such a writer to be. He was open, genial, manly, a keen sportsman, an ardent patriot, and an honourable and chivalrous soul. Though he wrote too much, and with great haste, in the midst of a busy life, and overloaded his books sometimes with too much history, when he reaches his narrative no novelist of

any country is his equal in natural story-telling. He died in 1832, worn out by incessant work.

IN every large Italian city streets are named after three modern Italians. They are the men who, living at the same time, made their native land a free and united country.

It was Count Cavour whose wise statesmanship made the union possible, Mazzini who inspired his countrymen to demand liberty, and Garibaldi who fought for it.

Cavour used his native state of Piedmont, which, with Sardinia, was ruled by Victor Emmanuel's father, as the centre round which other parts of Italy could rally, and by gaining the friendship of Great Britain and France he broke the power of Austria in Italy. But he had to bribe Napoleon III. by giving him the Italian provinces of Nice and Savoy. Cavour died in June, 1861, a few months after he had seen Victor Emmanuel crowned king. He was a very great statesman, wise, moderate, and far-seeing, and, though Mazzini and Garibaldi had more of the fiery Italian temperament, his country holds him in

high honour for his clever management of affairs and men.

THE first Atlantic Cable, finished in 1858, connected Newfoundland with Valentia in Ireland.

Many previous attempts had failed, and there was far more cable lying broken on the ooze of the ocean bed than would join the two continents.

Nor was the first completed cable a success. The current was very weak, and the first message from the Queen of England to the President of the United States, containing 90 words, was 67 minutes in transmission.

It was seven years later that an ocean cable became a real success. Practical telegraphy on land began in 1837; and the first sea-cable was laid between Dover and Calais in 1851. It was not till improvements suggested by Lord Kelvin were used that telegraphy across thousands of miles of ocean became really useful, and by that time £40,000,000 had been spent in experiments and failures.

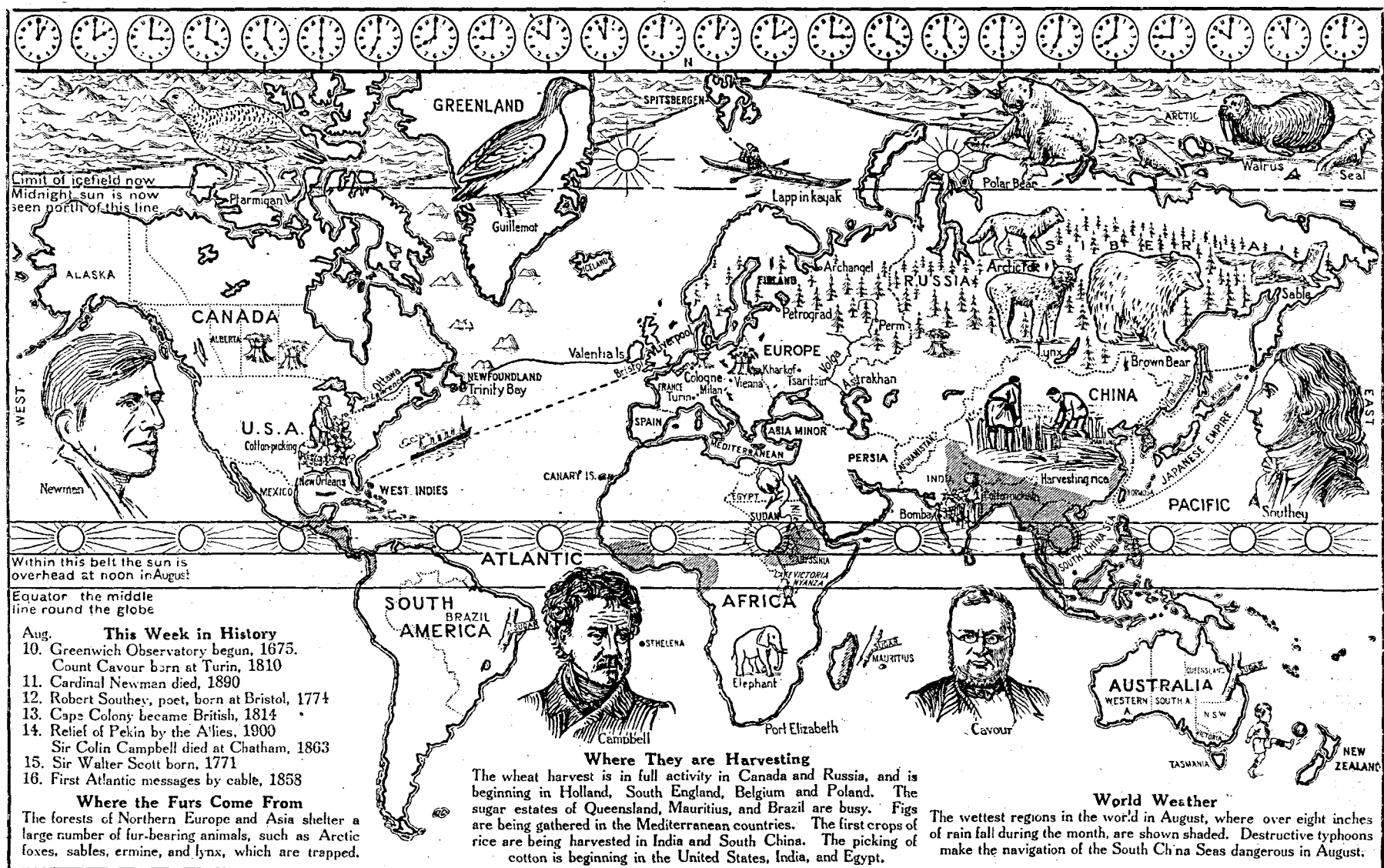
THE Royal Observatory at Greenwich was the second national institution of its kind in the world, the first—older

by a few years—being that of Paris. Now the observatory has the greatest series in existence of continuous records of the sky. The leading place of Great Britain as a seafaring nation, and the completeness of the observatory's work for practical purposes, have led to Greenwich being used as a starting point for measurements of the world. Through it runs the zero line of longitude. True time is wired from Greenwich daily to every important post-office, and many watchmakers have it wired direct.

Greenwich Observatory is, in fact, the Time Centre of the world.

We count time from the halfway point, the line on which Greenwich stands. At noon in Greenwich, for every 15 degrees east the day is one hour older, and for every 15 degrees west the day is one hour younger.

Our map shows time all over the world. Sunlight travels westward round the earth. Its circle is 25,000 miles, or 360 degrees, and it completes its journey in 24 hours, travelling 15 degrees an hour.



PLACES ON THE PICTURE-NEWS MAP OF THE WORLD—EVENTS OF THE DAY IN MANY COUNTRIES AND TOWNS

Abyssinia is about to issue a fine new series of postage stamps, with pictures of the big game of the country.

Alberta, the great wheat-growing province of Canada, is faced with a desperate food crisis owing to drought. Hundreds of farmers have lost two crops in succession, and have no food for cattle and little for their families.

Arctic. At this time of the year vast numbers of birds, such as the ptarmigan and guillemot, live by the shores of the Arctic Ocean. In winter they go south.

Bombay is now a great manufacturing centre of the cheaper cotton goods used by the natives of India.

Canada has coal deposits equal to one-seventh of the world's known supplies. Alberta alone has over a million million tons. Yet these resources are still undeveloped, and in 1918 Canada imported 21,678,587 tons of coal.

Essen, the headquarters of Krupp's gunworks in Germany, is now turning out large quantities of rulers, measures and ventilators from the factories which made the shells.

Finland is settling down under its republican constitution. Its first republican parliament has just met, and its first President elected.

France has started a new industry in her silk factories, that of printing silks by colour photography.

Great Britain imported over nine million goat skins into the United Kingdom from other parts of the Empire during 1917, but the number dropped to 4,047,964 in 1918.

Greenland. Icebergs are still breaking off the Greenland ice-cap, and are floating southwards to Newfoundland, where they are a source of danger to

ships. In the middle of August it is necessary for steamships from New York to England to adopt a more southerly course.

Japan has been sending dried herrings to Europe and America, where they are much liked. Hitherto Japanese herrings were made into manure, after the oil had been extracted.

Milan, though an inland city, is being made into a great port. It is to be the centre of a system of canals linking together the cities of Northern Italy.

New Orleans. The cotton now being picked in the south of the United States is shipped from the great American port of New Orleans, in the Gulf of Mexico, to Liverpool as the raw material of the textile manufactures of Lancashire and Cheshire.

Persia is anticipating great results from the richest source of oil yet found

in that country. It is shortly to be tapped in a large oil-bearing tract of nearly 400 square miles which has been found in the Irak district, and seem likely to be richer than Baku.

Port Elizabeth. Rogue elephants have been doing so much damage near the Addo reserve, Port Elizabeth, that the Government of South Africa decided to exterminate the whole herd of 300 elephants. But a zoological company has offered to buy them all, proposing to kill the rogues and tame the others.

South Africa has 32,100,000 head of sheep, and produces 171,000,000 pounds of wool a year.

Sudan nobles have been to see the King to express the gratitude of the Sudanese for the benefits of British rule.

Vladivostok news shows that there is a stupendous demand throughout the eastern part of Russia for shirts.

CHILDREN'S NEWSPAPER

AUGUST 9 1919

How Not to be Happy

One of the first things we should all understand is public spirit. It means that each one of us should act so as to make life pleasanter for all and not unpleasant for any.

The first lessons given to children in Japanese schools are on public behaviour, so that a Japanese thinks before he does anything, "Will this be disagreeable, unkind, or dangerous to other people?" In England we are not so civilised. We do not think of teaching such things as how to behave in public places.

The nation has been holiday-making after the war, and going out into country places to find freedom and fresh air, and to express its joy, and it is a great sight to see our people happy. But thoughtlessness has often spoiled the spectacle.

From all directions come reports of damage, and beautiful places made ugly by unnecessary litter and an untidiness that must spoil lovely scenes for those who visit them later, or bring trouble and expense to those who have generously welcomed holiday visitors into their grounds. The County Council of Surrey has been compelled to threaten with fines people who scatter waste-paper in public places.

In some parks tons of refuse have been left, making beautiful places hideous. The private grounds of generous people who are glad to allow everyone to share their enjoyment of beautiful and costly gardens have been carelessly or wilfully damaged, and are now being closed because holiday-makers have not been educated into a sense of beauty, or have not enough natural taste to know how to behave.

And, worst of all, the carelessness of smokers who throw away lighted matches in dry weather, or out of a malicious love of doing harm, has set miles of moors and heath alight, burned much property, destroyed beauty that cannot be replaced for years, and devastated great tracts of lovely bird-life.

In all the most attractive parts of Britain this senseless destruction has been going on, chiefly because a certain number of people do not understand how to behave, and have not realised that an intelligent public spirit should rule a holiday.

In days when we have all caught the spirit of citizenship, worthy of a great civilised nation, good people will voluntarily police our land against the stupidity and thoughtlessness and mischief which spoil the quiet glory of our country. To keep our cities neat and clean, and our countryside free from ugliness, will be one of the common duties of a patriot.



THE EDITOR'S TABLE

Fleetway House, Farringdon Street, London
above the hidden waters of the ancient River
Fleet, the cradle of the journalism of the world



Our Sins Will Find Us Out

WE are going to have great trouble with coal. It is the way of things that those who waste shall want, and for years we have been wasting coal as if it fell from heaven like rain.

It is brought up out of the earth by the most terrible form of toil still left to men, and yet, year after year, our governments have allowed it to be thrown away in millions of tons. It is all a question of the proper use of it. The scientific use and treatment of coal would make it possible for Great Britain to do with one-third of her present supply, and if Parliament had attended to these things years ago there need have been no coal crisis today.

Perhaps Parliament will do it now. The nation turned to science in its hour of trouble, and science won the war; let her turn to science now, and science will win the peace.

Who ever knew truth put to the worse in a free and open encounter? MILTON

Our Dumb Friends

PARLIAMENT is examining a Bill to compel those who operate on animals to drug the animal into peaceful sleep, so that it shall feel no pain.

How necessary this is is seen from the statement of a veterinary surgeon, who spoke for a Government department. He described an operation which, he said, caused animals excruciating pain, during which they roared and struggled; yet he asked that this Bill to save these animals pain should not come into force for two years, as it would seriously affect Irish breeders of cattle. That is to say, this brutality to animals must be continued for two years because certain people make a profit out of it.

We are glad to see that the chairman dismissed this witness with the remark: "Your proposal is to take the cash and let the animals suffer pain. I have nothing more to ask you." That is a touch of humanity in Parliament which all good people will appreciate.



Peter Puck Makes the World Go Round
He thinks it should move faster now that Peace has come

When my robe of dreams is tattered,
If ever it is so,
And someone seems to scorn it,
O, I would have him know
That it was torn on points of stars
And gold of the rainbow.

Foch's Dream

CINCINNATUS went back to his plough after he had saved the State; Foch hopes to go back to his country house and live as a farmer now that he has saved Europe. Like Clemenceau, he is going to write a book, and it will be a good book to read if it has many things in it like those twenty words he spoke after his ride through London.

He was speaking of France's two great wars—the defeat of 1871 and the redemption of 1918. "Time has its revenges," said the great Marshal of France, "but in my case it is the bitterness of youth that is sweetened in old age."

Proverb of the Day



To the Air Ministry which is neglecting a tremendous opportunity by hoarding up thousands of new aeroplanes which might be used for training pilots in the Territorial Air Force:

Strike While the Iron is Hot

Miss Dora

DORA is not to die, after all—yet. She was born with the war, and her full name is Miss "Defence of the Realm Act."

Very well she defended us against foes within and foes without. It is Dora that gives the Government powers to deal quickly with sudden dangers that may arise and cannot be dealt with under ordinary laws.

But she must not be allowed to grow very old, for it is against the spirit of liberty to let such a lady as Dora, with all her terrible powers, grow up among free people. Dora belongs to the war, and must die when the dangers of war are past.

It is war's way, however, to leave its troubles behind for Peace to settle, and it is thought that Dora may be useful to Peace for a little while, so that she is to live a year longer. She is now five, and no five-year-old before has had such powers in Britain. What we have to do now is to keep our eye on Dora to see that she does not grow up to be a big girl.

Midsummer

Loud is the summer's busy song,
The smallest breeze can find a tongue,
While insects of each tiny size
Grow teasing with their melodies,
Till noon burns with its blistering breath
Around, and day lies still as death.

The cricket on its bank is dumb;
The very flies forget to hum;
And, save the wagon rocking round,
The landscape sleeps without a sound.
The breeze is stopped, the lazy bough
Hath not a leaf that danceth now.

The taller grass upon the hill,
The spider's threads, are standing still;
The feathers, dropped from moorhen's wing,
Which to the water's surface cling,
Are steadfast, and as heavy seem
As stones beneath them in the stream.

JOHN CLARE

The Easy Way to Paradise

WE talk as if the road to heaven were hard, and very often it is; but at times the way to Paradise is easy. What a paradise it would seem if we could stamp out consumption, the terrible plague which kills a thousand people every week, afflicts four hundred thousand all the time, and depresses the lives of millions of people in these suffering families.

We have known for years that all we have to do to abolish consumption is to be a clean nation, but we are not a clean nation; that is the pity of it; and the oftener we remember it the more we shall be ashamed of it, and the cleaner we shall be.

Now, however, a doctor has pointed out another way in which we can end this plague, and it is the easiest way in the world. If we had a race of people who breathed properly for one generation, he says, consumption would be stamped out. It is just as stupid to breathe through the mouth as it would be to feed through the nose, he says, and we of the Children's Newspaper must league ourselves together to put an end to this and all other stupid things.

Think of it! If we all breathed properly the greatest source of misery in this land would disappear. As the Children's Encyclopedia says:

If I want to be happy,
And quick on my toes,
I must bite my food slowly
And breathe through my nose.

Tip-Cat

Every cottage in rural England, a professor says, is a priceless national possession. Priceless is the right word now, and the landlord gets every penny.

Agricultural students: Harrow boys.

The newest craze is jazzing on the roof. Demobilised soldiers will feel at home when going over the top.

Going for a change of air: Fetching a new record for the gramophone.

At Willesden the police have issued a summons in connection with "a dog not led by a person with a collar." If this is the new law, dogs are becoming something of a neck-tie.

A magistrate declares that some ex-soldiers would stick a knife into you as soon as look at you. But even civilians, if they don't like your looks, will cut you dead.

Why did Sweet William speedwell?
Because the dog-rose.

Nothing but "unflagging effort," according to Sir Robert Horne, can bring the country to prosperity. This will discourage patriots who have been buying bunting.

"Infants in arms" have to be paid for now in taxis. To avoid such expense the parents are up in arms also, and won't pay till they are put down.

A Prayer From Keats

In the long vista of the years to roll,
Let me not see my country's honour fade;
Oh! let me see our land retain its soul!
Her pride in freedom, and not freedom's
shade.

KEATS



PETER PUCK
WANTS TO KNOW

Whether the Kaiser keeps up
his correspondence with Tino

THE FOX IN THE CORNFIELD

Reynard's Surprise for Australia

LETTING HIS PREY GO AND ROBBING THEIR LARDER

By Our Natural Historian

"The little foxes that spoil the vines," as we read in the Bible, are succeeded in Australia by big foxes that spoil the flocks. They have developed a very queer appetite, which can be traced back to drought.

The drought caused all herbage to die down in the Pera district of New South Wales, and destroyed by starvation countless hosts of rabbits upon which the foxes prey when they do not attack sheep. Denied this source of food, the fox packs closed in on the country surrounding the Government Experimental Farm at Pera Bore.

Here the effects of the absence of water have been acutely felt, so wise shepherds, to keep their flocks alive, planted considerable areas of sorghum, a cereal of which one variety yields Indian millet and the other sugar. It is the sugary species which has lured the foxes, for, instead of attacking the sheep sheltered by the Government in these green pastures, the carnivorous beasts have attacked the food supply itself. They have given up slaughtering the sheep, let us say, and taken to robbing their larder.

The Fox's Temptation

The stems of sorghum are rich with fluid sugar, and it is this which has proved too much for the resistance of the foxes. The hungry animals have devoured the sugary growth in such quantities as to destroy half the crop, so that sheep die of want as surely as they would die if the foxes killed and ate them. No fewer than 60 foxes have been destroyed in one area alone.

There is no end to the variety of diet which starving creatures, from men to mice, will seize upon. Magellan's crews, when they were starving in the Pacific, ate the leather in which the masts of their ships were sheathed. Arctic explorers have eaten spare boots and sacks, they have shot bears and found in them masses of paper that the starving creatures had picked up in the neighbourhood of camps, and eaten because they could find nothing better.

When Necessity Drives

Deer in the Highlands have been known to kill and eat rabbits in periods of privation, and even to devour carrion. Iceland ponies are fed throughout the winter on fish refuse, and cows have been known to munch up salmon left on a river bank by anglers.

All cats have a passion for fish, which they cannot catch; some will eat asparagus and strawberries; dogs will eat all sorts of fruit; fowls, which have as wide a range of diet as ducks, will devour carrion, even the body of one of their own kind, just as a pike will gobble up its own children. Foods impossible to man, beast, and bird in normal times become dire necessities when hunger pinches and imparts insatiable yearning to the appetite.

Reversal of Instinct

All this we know, but it is not often that we find flesh-eaters driven by want to alter their kind of food when their natural food is still available. That is an even more drastic reversal of instinct than the change of habit in the tiger, which, having feasted on cattle from its youth up, will suddenly strike down a human being. That change, once made, remains. Once a man-eater, always a man-eater.

It remains to be seen whether these Australian foxes, if they survive the campaign against them, remain vegetable eaters, or revert, or go back, to their rabbit and mutton.

E. A. B.

THE MERRY GOOSE-QUILL BOYS OF CHINA

The bright-faced Chinese boy on page 12 smiles a story at us. He lives at Föochow and attends one of the schools started by an energetic American missionary, the Rev. G. S. Miner, and he smiles because, though poor, he has been made better off by the war.

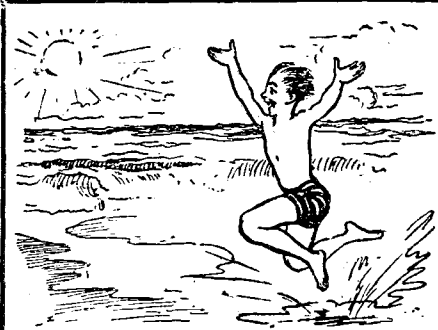
His work, between the hours of lessons, is cutting toothpicks from goose-quills to sell in America, and perhaps in England. A lad like him has been known to cut 7,200 in a day, and Mr. Miner's scholars cut two and a half million quills every month.

They were not doing this before the war. At that time the tooth-picks provided in restaurants, each wrapped in paper, with its end sterilised, were cut

in Bohemia from the goose-quills of Austro-Hungary, and were cleansed, dipped in a disinfecting chemical mixture, and sent in packets all over the world by a business-like Jew known as "the toothpick king."

When Austria went to war the wholesale tooth-pick dealer saw at once that his Bohemian trade was doomed, and made rapid inquiries as to where the greatest number of geese were reared. He found that that was in China, so he transferred his business there, and put his cutting of the quills into the hands of Mr. Miner, who had started 117 schools, and could employ any number of handy Chinese boys like this merry lad whose portrait we give on another page.

DON'T KEEP GRUMBLING AT THE WEATHER



He likes the sun because everything is so bright



He likes the rain because it makes everything look so fresh



He likes the snow because everything is so jolly



He likes the frost because it is such fine fun



He likes the wind because everything seems on the move



J. H. DOWD.
He loves the fog because it is like a jolly game of hide and seek

Scientists say that our British climate is the best in the world. Peter Puck, at any rate, sets us all a good example by making the best of all weathers.

THE GENERAL WHO WON ALL OUR HEARTS

General Pershing is home again in his own country. When the great Victory march was made through London—the most thrilling procession ever seen—the first of the generals to pass was the American Commander, General Pershing.

The great roar of applause that naturally welcomed him as a brave ally leading a gallant army closely akin to us was redoubled when everyone perceived with what a smiling air he rode his prancing charger. The hearts of the people instantly went out to him, and they gave him another and another rousing cheer. They had begun to cheer for America; they went on cheering for Pershing.

Not all of them would know that this smiling soldier, who radiated back on the people their own joy, glad at heart that they welcomed his men so warmly, had reasons for being more sad than the saddest in the great crowd who were mourning the absence of those whom

they had loved from the pageant of victory. For while the gallant general was absent from his country fighting for America in Mexico, his wife and all his family, except one little son, had perished there in a fire which burned down the hotel where they happened to be staying. He had gone through the war with that terrible family tragedy weighing heavily on his heart.

And when, before Buckingham Palace, he left the march to take his stand by our king, while the wonderful procession marched by and saluted, there stood his little remaining son, in khaki, a boy of eight. The thought of this fine soldier's sorrow, so nobly borne, and the remembrance of his warm tributes to our British good-will towards his country, have made General Pershing one of the great war figures that will stand out for ever in the memories of all observers. He is loved on both sides of the Atlantic.

FLIGHT

Wonderful Mechanism for Engines at a Height

SCIENCE AND THE FIRE PERIL

By Our Aerial Correspondent

The chief difficulty in flying at a great height is failure of engine power. The air becomes so thin that it does not contain enough oxygen to create a strong explosion in the cylinders.

The ordinary way of meeting this defect is to provide special air inlets, which are opened when the engine begins to fail. They allow more air to enter and mix with the petrol, but they are really a makeshift, and serious losses in power still occur.

We have already dealt with the Rateau fan, which seeks to overcome this trouble. The Sturtevant Company of America is now showing, at the American Aeronautical Exhibition, a wonderful automatic device for feeding air to a failing engine. The mechanism consists of an ordinary air-pump, driven by a belt attached to the crank-shaft, but the speed at which the pump works is controlled by a curious mechanism which tightens the belt when thin air is reached and lets it slacken when the atmosphere is dense enough for the engine to work in the ordinary way.

The special mechanism is thus a kind of air governor, enabling the engine to answer to changes in atmospheric pressure without attention from the pilot.

FIREPROOF PETROL TANK

The early history of flight is marked with peril and disaster, as the world has seen once more in England and America; but invention will overtake disaster in the end—already a fireproof petrol tank has come.

Inside the tank, invented by a young Canadian officer, Lieut. Imber, are tubes and plates of aluminium that prevent the petrol swishing about. Next comes a thin metal case, and over this is a covering of vulcanised rubber a quarter of an inch thick. Every part bends and gives under a blow. The elastic cover especially bulges inward, like a rubber ball when struck, and then, under the pressure of the petrol, swells out again and closes any holes.

It is now possible to combine the fireproof tank with an automatic device for switching off the magneto, and so stopping electric sparks in case of accident. There are also improved British designs for all-metal machines, with a new material for supporting surfaces instead of linen fabric.

BY MOTOR TO THE AEROPLANE

In Germany six passenger air lines are now working from Berlin, with daily trips both ways. Hamburg, Leipzig, Hanover, and other towns are connected, and the fares run to about four shillings a mile.

Passengers book by telephone to the aerodrome; and a motor-car calls for them and takes them to the air station, where they pay their fare, including the motor-car run at the other end and the use of a warm flying suit.

HOLIDAY FLYING

Most of the preparations being made for pleasure flights in the summer holidays show that the seaplane will be the favourite British sporting machine.

The cost of a seaplane base is less than that of a land aerodrome, and running expenses are smaller. Flying over the sea in good weather is safer than flying over land, as in the case of engine trouble the seaplane has an assured landing-place. Moreover, it is by the sea that holiday-makers gather, and hundreds of thousands of them will be eager for an adventure in the air.

DRAKE'S CUP

Francis Drake's cup, given to him by Queen Elizabeth, as described last week, has been sold for £3800.

DANGER BEHIND THE COAL CRISIS

What it is All About

"DIRECT ACTION" OF LABOUR AND WHAT IT MEANS

By Our Political Correspondent

A great coal crisis has been agitating the country, involving the gravest consequences. What is it all about? To understand it clearly we must go back into history.

Two hundred years ago, if a bold rogue was short of money, he waylaid some stranger in a lonely place, pointed a pistol at his head, and, with the threat "Your money or your life," took whatever he had. The thief, who thus put might above right, like a Prussian, was called a highwayman.

Sixty years ago, similar rogues in our cities waylaid any passer-by who seemed to have any money, strangled him till he was senseless, and, having taken whatever of value he had, hid themselves. These thieves were called garotters.

The bad principle underlying the actions of the highwayman and the garotter is that if you want anything, and have the power to take it, you may take it, whatever harm you do to perfectly innocent people.

Principle That Ruined Germany

It was precisely this principle of strength, seizing whatever it wanted regardless of harm to others, that was the ruin of Germany. It was against this principle of violent selfishness, striding rough-shod over others, that the free nations rallied in the Great War. They defeated it, and the kings who practised it were toppled down.

Now, sad to say, this is exactly the principle that groups of men have been adopting as their own in England, and the men who are chiefly doing this are a body for whom we have all great sympathy and respect, the coal-miners. As a body they have been strong in character and honourable in their manliness, and we have been proud of them; yet suddenly they seem, on this greatest and simplest of moral questions, to have lost all sense of the eternal difference between simple right and cruel wrong.

Let no one say we are wronging the miners by comparing them to highwaymen and garotters. They do not wish to steal from anybody. They claim that what they are taking they have earned.

Wrong Way to a Right End

But where they are exactly like the highwayman is in adopting the evil principle of using their strength to strangle anybody and everybody, careless of the harm they do. It is exactly the principle used by the Germans in defence of their submarine campaign and their bombs on women and children. They meant to frighten us into surrender, and they did not care who suffered.

What is it that the miners do in carrying out the policy of what they call Direct Action? They have their own ends to gain, and, seeing that their industry is one on which nearly all other industries rest, they are willing to stop all trade, to bring suffering to all their fellow citizens, and every living human creature in the land, and to ruin the country if need be, to gain their end, which could be gained far better by reason and justice. They have even imperilled the future of the mines by allowing them to be flooded, so destroying their own means of livelihood.

Reign of Strength and Terror

Now, this reign of strength and terror by a few against the rest is fatal to the whole system of Government that has been built up in Great Britain and is her greatest glory in the eyes of all the world. The name given to this revival of the reign of strength instead of reason and humane dealing is Direct Action. Direct action, in principle, means the direct action of the people as against the action of the people through the Government they have chosen; and in effect

it means, as it must, the direct action of some of the people against the Government chosen by all the people.

That is a bad principle for all of us, and can bring nothing but ruin and injustice in its train. It may be justified in a despotic country, with a Government in power which will not do the people's will. But in this country we set up Governments chosen by all the people of their own free will, and no section of the people may set itself against a freely-chosen Government. They may criticise the Government and oppose it, they may defeat it and overthrow it, but whatever end they have in view must be pursued by lawful ways, and not by bullyings and threatenings.

Keep within the Law

In the case of the miners, many will agree with what they aim at. Some of them claim rights in connection with their work; others claim that the Government is not keeping its word in connection with the Coal Commission; others object to the continuance of conscription after peace; others object to the extra price of coal.

They may be right or wrong in these things; that has nothing to do with it. The point is that there are right and wise ways of dealing with the freely-chosen Governments of free peoples, and there is an end of all society if miners or railwaymen, or farmers or printers, or telegraph operators, or any other groups of people are allowed to hold up the common interests of all because they do not agree with something being done.

In a word, we must all act through our Governments and not outside them. We must keep within the law, or we have not Civilisation, but Anarchy. J. D.

A GREAT LIFE IN INDIA

The Work a Missionary Does

The death is announced from India of Dr. A. Campbell, who had worked in that country as a missionary since 1872.

Dr. Campbell, who was sent out by the Free Church of Scotland, was perhaps the most successful and honoured of the new type of missionaries who feel that they must not only preach to the natives, but must show them that Christianity is a blessing to them in their daily life.

Placed in a district of Central India, where the people were extremely poor, he taught them how to support themselves by industries that were new to them, and how to make their land more productive. They lighted their houses in the long tropical night with castor-oil; and he showed them how to grow and use the castor-oil plants that would give them light in their darkness.

When famine came, as it will come when the rains fail, he supported 5000 of them, and the Government gave him charge of the relief works that kept the people alive. Afterwards he was made an honorary member of the Government.

No wonder that he was revered and beloved by them. Such men as Dr. Campbell, and the medical missionaries who act as free doctors to the native races among whom they live, prepare the way by their good deeds for the teaching that will banish superstition, and help their brown brethren to understand that Christianity is good for the body and soul.

WHERE THE COAL MONEY GOES

It has been estimated that during the coming year the coal brought to the surface in Great Britain will amount to 192,000,000 tons, and mining it will cost £281,250,000, or £1 9s. 4d. per ton.

For labour	210,250,000
For timber and stores	34,500,000
Other costs	13,000,000
Royalties	6,000,000
Owners' profits	12,500,000
Compensation on unprofitable mines	3,000,000
Government expenses	1,000,000
Margin for emergencies	1,000,000

People who buy coal in small quantities pay twice as much as it cost before it was brought away from the mine.

NEW LEAVES TURNED OVER

Books Being Read Now

FRANCE'S STRONG MAN

Clemenceau. By Camille Ducray. Hodder and Stoughton. 5s. net.

A vivid picture of the leader of France

The life of the most vigorous politician in France, Georges-Benjamin Clemenceau, one of the "Big Four" who have been rearranging the map of Europe and clearing up the war, is here sketched vigorously and sympathetically in all its romantic changes. Each chapter pictures one aspect of M. Clemenceau's career; first as student, then doctor, politician, journalist, author, citizen, and statesman.

The chief impressions of Clemenceau's character left on the reader are first of all consistency, and then of unbounded energy. Always he has been enthusiastically Republican; always since Bismarck's onslaught on France he has stood for the restoration of the lost provinces; and his consuming energy has seemed to point right through his life to the great part he has played during the last years of the war in the triumph of liberty and justice. He is the very embodiment of restored France.

SCHOOLS ACROSS THE ATLANTIC

America at School and Work. By Herbert Branstons Gray, D.D. Nisbet. 5s. net.

A rapid glance over American schools

Dr. Gray, who has been to see, holds that American education has changed greatly in recent years. He succeeds in impressing the English reader with the great variety in American systems of schooling, and the earnestness that is pulsing through it all. He feels that in America the school is far more closely linked with life than in England.

The drawback is that teaching does not pay enough to a man to draw him into it as a career. The material side of education, such as buildings, laboratories, and books is attended to with a princely generosity; the all-important human side is much less considered.

TALES OF THE SUBMARINE MEN

Submarine and Anti-Submarine. By Sir H. Newbolt. 21 pictures. Longmans. 7s. 6d. net.

The thrilling tale of the great ocean hunt

The hunting down of the undersea German pirate fleet was carried on in many forms, all dangerous and exciting. This book tells, with the wide knowledge and graphic pen of Sir H. Newbolt, all the ways by which the enemy was held in check till at last he dared continue the strife no longer. We read how submarines attacked warships, and how warships checkmated submarines; how the fishing-fleet kept watch and cleared the way of mines; how destroyers ran the foe down; how depth-charges were used, and how they were evaded; the parts played by P-boats and Q-boats; and, least known of all, how submarines were handled against submarines, often with deadly effect. It is a stirring story that for generations will hold us breathless, and it is here told fully and well.

ADVENTURES UNDER SEA

War in the Underseas. By Harold F. B. Wheeler. 9 illustrations. Harrap. 6s. net.

A well-told story of undersea adventure

The writer, an experienced describer of naval exploits, re-tells a number of the heroic deeds done during the war, and adds some not generally known.

He takes us into all the seas where the hunt for submarines was carried on; and brings his story along to the great surrender of the German fleet when all its hopes had faded out. It is a record of daring that will never become stale to readers who respond to the lure of danger.

PUPS AND KITS

Puppies and Kittens. By Carine Cadby. 39 photographs. Mills and Boon. 2s. 6d. net.

Charming talks with children about pets

These stories of the doings of dogs and cats will lead little children to feel aright towards their dumb friends, and to observe them closely, with interest and understanding. The photographs are worthy of the reading.

UNCLE TOBY WAS WRONG

No Room in the World for Flies and Men

WHY YOU SHOULD KILL EVERY FLY YOU SEE

Boys and girls, kill every house-fly and bluebottle you can. Put them painlessly and swiftly to death.

They are the enemies of health, especially of little children, and must be fought as we fight a plague of the human race, like the fly who causes sleeping sickness in the tropics, destroying hundreds of thousands of lives; they are like the flea and the louse, which inoculate us with horrible diseases—typhus and trench fever among them.

Uncle Toby, gently catching a fly which had been tilting at his nose all through lunch, carried him mercifully to the window and put him outside, saying, "Go, poor fellow; there is room enough in the world for thee and me." But Uncle Toby, one of the lovable characters of literature for a century or more, was wrong, and the boy who kills flies is right; though it has taken 150 years since Uncle Toby's day to find out the truth.

It is now established beyond all doubt that the house-fly, hatched from an egg deposited in filth, feeding on filth, and then flying to our food, carries with it enormous numbers of germs; there may be 100,000 organisms on the legs and mouth of a single fly. Among these germs are those which spread consumption, cholera, anthrax, and typhoid



The Agent of Disease Abroad in the Land

fever. Flies bring them into our food and poison it; they poison our milk, and so kill babies in terrible numbers during the hot months of the year.

A single fly may lay about a thousand eggs in one season, but so rapid is multiplication that perfect flies are hatched in ten days and each fly lays eggs in its turn, so that the progeny of one becomes by autumn a host millions upon millions strong, all carriers of disease.

If we were as scrupulous in guarding against house-flies as we are against vermin, flies would soon be greatly reduced in number; but we are not. We accumulate garbage in which these filthy insects breed.

Worse Than the Tiger

Unhappily there seems to be no royal road to success in this urgent work of ridding the world of this unhealthy thing.

Chemical sprays can be used to clear a house; weak formaline in milk and water kills flies, and renders the dead germ-carriers antiseptic at the same time; food can be covered with gauze, and house refuse can be burned or disinfected; but the sovereign cure for flies has yet to be found.

Benevolent Uncle Tobies must be disregarded now when they tell us that there is room enough in the world for men and flies. There is not. We have to think of the lives of Uncle Toby's nephews and nieces. More and more we are tracking disease down to its source in bacteria, and the house-fly is one of the greatest distributors of these seeds of death. A tiger which eats men and women in India is a frightful monster, but the fly is more to be feared, for it is unsuspected; it seems to be so innocent, and it does its filthy work in our very midst, poisoning our food under our very eyes. Kill it!

A LITTLE BAND OF SAVAGES

Birds That Are Preparing to Leave Us

THE HEATHER IN BLOOM

By Our Country Correspondent

Just now, if we are out at dusk, we may see a weasel, a little animal about nine inches long from snout to tail tip, but exceedingly fierce. Fortunately, it generally lives on mice, voles, small birds and frogs; but sometimes it will attack young rabbits and chickens. So small is it that it can approach a poultry run by travelling along a mole's tunnel, and so persistent is it that it will follow a water vole into the brook, or climb a tree after a bird's nest.

Like its larger relative the stoat, it will in self-defence not only bite severely, but also emit a very disagreeable odour, and when it is defending its young it seems to know no fear. The fierce little creature will even run up a man's leg again and again to get at his throat, although knocked to the ground repeatedly. Taking it all round, the weasel is a good friend to man because it destroys so much vermin.

The Greedy Mole

In a field where there are molehills, if you see one larger than the others, you may be pretty certain that it covers a nursery, and it is worth while digging down to the nest, though probably when you get there you will find the parents have removed their offspring and the place is empty. The young moles are funny little fellows. Usually there are four or five in a family, and they are tremendous eaters. One will consume its own weight of worms in 24 hours.

The kingfisher, our most gorgeous bird, is now returning to the place where it was seen in Spring, and is well worth watching for.

Perched on a branch overhanging a stream, it will watch most patiently for a fish, and then plunge suddenly into the water; and before you realise that it has gone, it will be back on the perch swallowing the fish headfirst. About now the young kingfishers are looking out for suitable hunting-grounds of their own, as their parents will not tolerate any poaching on their preserves.

The First Paper Maker

The ringdove is laying for the second time, the second broods of house martins are fledged, and the swallows and martins are beginning to congregate for their annual migration to the south. When we see them we cannot but feel that the year is on the wane.

A common object of the countryside just now is the woodwasp's nest; and a dainty piece of work it is, made of a kind of papier maché which the wasp produces by masticating small fibres of wood. He was indeed a maker of paper from wood pulp long before man was seen on the earth. The nest is suspended from the branch of a tree, and the only opening is a small hole at the bottom.

Plucky Little Cocktail Beetle

The satin moth and the silver-spotted or pearl skipper butterfly are on the wing; and the devil's coachhorse or cocktail beetle is appearing in considerable numbers. It is one of the most interesting of the beetles. If you touch it it raises its tail like a scorpion and looks formidable, though it can do no harm to a human being. It is a fierce and voracious creature; nothing daunts it, and it will fight a creature four times its size. It deserves protection, for it devours large numbers of harmful insects.

In the fields the barley is ready for cutting, if the work has not already begun. Snowberries are ripe, and if we look at the beech we shall see that the fruit is fast coming to maturity. Among the new wild flowers are soapwort, orpine, and, best of all, heather. C.R.

TELEPHONE THAT WORKS ITSELF

Automatic Instruments
NO MORE WRONG NUMBERS

The telephone is the worst-managed instrument in London, but the delays and mistakes which cause so much annoyance and inconvenience to busy people will probably be a thing of the past when automatic telephones come into general use. A new start in this direction is being made at Stockport.

Automatic telephones require no attention, except that of an engineering kind, but even the engineers, it is stated, will be able to leave the new telephones to look after themselves at night and during the week-end.

Hereford, Grimsby, Leeds, and one or two other towns, possess automatic telephone systems already, of which there are at least four different kinds, and so far it has not been decided which kind will be used for London.

There are only 6000 subscribers in Leeds, while in London there are 1,40,000, and it will be a jump into the unknown to introduce automatic instruments throughout the biggest city in the world. There are other questions to be decided before London telephones are made automatic, such as the cost of installation, which is nearly half as much again as that of the exchanges in use now.

How to Ring Up 634276

The greater the number of subscribers, the more complicated will be the construction of the automatic exchanges. Thus at Leeds, there being under ten thousand subscribers, a five-figure exchange only is necessary. In London a six-figure exchange will be necessary.

The plan is to divide London into a number of areas, each of which has a number, but there would be not more than nine such areas; each "main" area would be again divided into nine more exchange areas, and there could be as many as 9999 telephone subscribers in each of these. Thus, if your telephone number were 634276, you would be subscriber number 4276 of the third exchange of the sixth main area, and anyone wanting to ring you up would word out these figures with the automatic instrument.

Dundee, Swansea, and Southampton are the next big towns to be made automatic, but London's turn will come one day. Then there will be no more wrong numbers, unless we make the mistakes ourselves.

NATURAL FACTS OF THE DAY



The universe moves to order like a clock. Sunrise and sunset, moonrise and moonset, high tide at London Bridge, ever they come and ever they go, while nations rise and fall.

Here is next week's time-table of sun, moon, and sea, given for London, from Sunday, August 10

	Sunday	Tuesday	Friday
Sunrise	5.37 a.m.	5.41 a.m.	5.45 a.m.
Sunset	8.32 p.m.	8.28 p.m.	8.23 p.m.
Moonrise	7.32 p.m.	8.22 p.m.	9.33 p.m.
Moonset	5.22 a.m.	7.52 a.m.	11.45 a.m.
High Tide	2.9 p.m.	3.20 p.m.	5.9 p.m.
Moonset	Black figures indicate next morning.		

Next
Week's
Moon



Other Worlds. Venus is now low in the south-west, setting 45 minutes after sunset.

NEXT WEEK IN THE GARDEN

Make the principal autumn sowing of cabbage seed, and a small sowing of turnip seed of a hardy sort for spring use.

Sow annuals for spring bedding, such as Virginian stocks, nemophila, insignis, alyssum saxatile, and myosotis. Cuttings of choice alpine plants inserted now should make strong plants by next spring.

WHAT USE IS A WEED?

How They Helped Us in the War

SURPRISING VALUE OF WILD GROWTHS

We have been accustomed to look upon weeds and wild plants as useless or harmful, but, though they need to be carefully watched that they do not spread and choke more useful plants, we have found during the war that weeds have a wide variety of uses, particularly in Germany and Austria.

Here is a list of the uses to which weeds and wild plants were put during the war, either by themselves or in combination with other vegetable products, as substitutes for richer growths.

FOR HUMAN FOOD. As beverages: chicory, hawthorn berries, couch-grass, bracken, sowthistle, dandelion, reeds, acorns, beech-nuts, horse-chestnuts, broom seeds, cowslips, primroses, meadow-sweet, ground-ivy, hips, and heather.

As food: couch-grass, sowthistle, sorrel, water-lilies, heather, horse-chestnuts, lichens, the root of the orchis, pignuts, nettle-tops, dandelions, wild hops, young gorse well crushed, and violets for flavouring; the red poppy, hazel nuts, and pine kernels for oil.

AS CATTLE FOOD. Heather and bracken, young gorse, couch-grass, beech nuts, horse-chestnuts, acorns, young nettles, knotgrass, chickweed, bindweed, seeds of the poppy and charlock, and, in place of mulberry leaves, comfrey and dandelion.

FIBRES. For textile manufactures: nettles, cotton grass, dried willow-bark.

FUEL. Gorse, pine cones, and seaweed. **MANURES.** Seaweed, bracken, couch-grass, and chickweed.

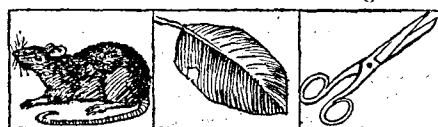
DRUGS. Meadow saffron, hemlock, poppy, foxglove, henbane and dandelion, alder buckthorn, seaweed, broad dock, the tall buttercup, and coltsfoot.

DYES. The wood plant (blue), woodwax (bright yellow), ladies' bedstraw (red), agrimony (yellow), nettles (yellow), sorrel (red).

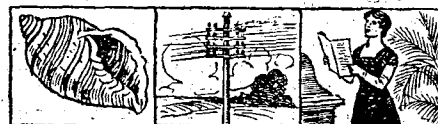
SOME MISCELLANEOUS USES. Agrimony, cinquefoil and bracken for tannin substitute, carrageen moss for saturating balloon envelopes and aeroplane wings; horsetail for scouring tin and brass and for polishing; nettles and goose-grass for curdling milk; nettles for rennet-making; heather for bedding; down from the leaves of coltsfoot for pillows; seaweed for glue; and Norwegian birch bark for shoe-soles.

Many of these processes are a return to uses that were common generations ago, before science had driven the herbalist from the field.

ICI ON PARLE FRANÇAIS



Le rat La feuille Les ciseaux



La coquille Le poteau télégraphique La cantatrice

Le rat est un animal nuisible.
Les feuilles tombent en automne.
Le tailleur a de grands ciseaux.
Il n'y a rien dans cette coquille.
Voici un poteau télégraphique.
La cantatrice chante bien.

UN DOMESTIQUE NAÏF

Un monsieur avait un œil de verre, qu'il ôtait chaque soir avant de se coucher.

Se trouvant un soir à l'hôtel, il pria le domestique de poser l'œil sur une table. Le domestique ne bougea point.

"Qu'attendez-vous donc?" lui demanda le monsieur d'un ton irrité.

"J'attends que vous me donniez l'autre, Monsieur," répondit le garçon.

GREAT STORY OF SELF-HELP

A Man and His Book

HOW HE PRINTED IT

From a Correspondent

I am very proud of one of my school-fellows. He was a small boy when I entered the school, and was called "Fossil," because of his interest in geology.

We lost sight of one another for 20 years after leaving school; and then one day a friend told me that a man living in a quaint house had shown sudden interest when my name was mentioned. "Could it possibly be the boy I went to school with?" he asked.

So I set out in quest of the quaint house, and a moment's gaze assured us both that we were old friends. Then came his story.



Mr. Felix Oswald

Heroes at Home

After he left school he entered the Civil Service, and led a rather monotonous life in London. All the while, however, he kept up his geology; and when an opportunity came of going to Turkish Armenia to make a geological survey, he eagerly seized it. He made the fullest notes of his research, and often, while travelling through desolate parts of Armenia, made drawings on horseback.

Returning home, he resumed his official duties, but with a new ambition. He determined to obtain the degree of Doctor of Science at London University. For this a man must have an essay printed for the examiners and Council. The candidate thought his notes on the geology of Armenia might serve for this purpose, but the cost of printing the notes was prohibitive. Suddenly the notion occurred to my friend and his young wife—"Why not set up the essay in type and print it ourselves?"

They bought a second-hand printing-press and a good stock of type, and, after the day's work at the office was over, the two would set up page after page. They were soon printing 16 pages at a time on the little press.

The Crown of Success

Then came the next adventure: "Why not illustrate the book with diagrams?" They learned lithography for this purpose. Undaunted by the labour of this fresh enterprise, they transferred to lithograph stones the drawings so carefully made in Armenia, and, with the "plates" ready to illustrate the printed sheets, the only thing now remaining was the binding. It was not considered worth while waiting to learn that, and a local bookbinder did the work.

Behold, then, at the end of several months of faithful persistence, a hundred volumes of my friend's book ready for presentation to the university.

He was soon made aware of what they thought of his research and its literary and artistic embodiment. Called into the room, he was addressed as "Doctor" at once, and was eulogised in warm terms of admiration.

Some of his drawings were so wonderfully clear in detail that the War Office secured the use of them; they had been made at a distance of 80 miles in the fine bright air of Armenia!

In the British Museum Library is a copy of this hand-printed book which won for my friend the degree of Doctor of Science. It has about 300 pages. Since writing it, Dr. Felix Oswald has written another remarkable book detailing his experiences "alone in the Land of Sleeping Sickness." He is now Probate Registrar for Nottingham, but in his leisure he occupies himself in excavating a Roman site in the Midlands.

D.W.



MARTIN CRUSOE

A BOY'S ADVENTURE ON WIZARD ISLAND

Told by T. C. Bridges, the popular story-writer

CHAPTER 51

A Battle of Giants

Martin had no weapon of any sort with which to meet the rush of the mad giant, so leaped towards the plane to get a bomb. In a flash he had one, but to his horror and despair he found that the slow match had burned out. Though he had matches about him it was useless to dream of lighting one in this furious gale.

There was a clatter of metal on metal. He spun round, to see Odan and the priest fighting furiously. The priest had drawn his bronze sword, and was defending himself against the terrific onslaught of the rebel chief.

At first sight the combat was terribly one-sided. Odan towered a foot and more above the short, squat figure of Hymer. His reach was double that of the priest, and his sword half as long again. On the face of it the priest was utterly outmatched.

Martin rushed desperately forward. He was prepared to fling himself into the fray, bare-handed, rather than see his friend murdered before his eyes.

"Stand back!" cried Hymer, in his great, deep, rolling voice. "Stand back, Englishman. Think you that I cannot deal with this son of evil?"

Martin paused, and suddenly realised that the combat was not so one-sided as he had at first supposed. If Odan had the height and reach, the priest had the strength of a bull, marvellous skill and complete confidence. While Odan fought like a mad beast, Hymer was cool and complete master of himself.

In the red glare of the blazing house the bronze swords flashed and wheeled like flames. Overhead the thunder bellowed like the crack of doom, and the great gale shrieking across the island formed a fit accompaniment to this battle of giants.

Odan's followers were thick on the turf behind him. But they did not offer to interfere. They stood as still as Martin himself, watching the tremendous duel with fascinated eyes.

Odan's sword rose and fell like a hammer as he strove with all his might to beat down his adversary's guard. But the priest's wrist was wrought steel, and his skill of fence something to marvel at. With his short, stiff sword he wove around himself a ring of defence which even Odan's mighty muscles could not penetrate.

Odan's face was a terrible sight. The man had gone berserk—fighting mad. His pale eyes glared horribly, there was foam upon his lips. He looked like nothing human.

Suddenly he sprang back. Raising his sword above his head he brought it down with a force that would have cloven a horse in twain. Hymer warded the blow, yet its weight brought him to his knees. With a wild roar of triumph Odan swung up his sword once more to give the finishing blow.

What happened next was so swift that Martin's eyes could hardly follow it. In a flash Hymer was on his feet again, and, instead of springing away, or dodging aside from Odan's next fearful hammer stroke, he leaped in after him. Odan's flaming blade came whizzing downwards and sparks flew as it clashed on Hymer's helmet, felling the priest to the ground. But at the self-same instant the giant too staggered back with a choking grunt, to drop

full length upon the grass with a thud like that of a falling tree. For an instant there was silence. Even the fury of the storm seemed quelled for an instant. The only sound was the crackle of the flames devouring Odan's palace.

Odan tried to rise, but the blood was streaming from him, and Martin saw that Hymer's sword had passed clean through his body just below his corselet. Then, with a hoarse cry, he fell back, dead.

And then the heavens opened, and down came the rain, not in drops, but in solid sheets.

CHAPTER 52

Joy at the Palace

For the time Martin stood quite still. He was like a man under a shower-bath, gasping for breath. Everywhere around him was a grey sheet of falling water. He could not see a yard.

But the cold douche quickly pulled him together. A flash of lightning shone livid through the gloom, and showed Hymer lying where he had fallen, flat on his back on the streaming ground.

Martin sprang towards him, seized him, and with a great effort of strength pulled him back under the nearest tree. He hardly knew why he did so, for he fully believed the splendid old priest to be dead. No human skull could have stood the crushing force of Odan's last terrific blow.

Though Odan was dead, though his men had vanished, though the rebellion would now, no doubt, rapidly come to an end, yet Martin was sick at heart. During these days of stress and trial he had come to love the brave, resourceful priest, and to feel that in him he had a real friend. Not since the news of his father's death had he felt so miserable.

The lightning flashed again, and in its blue glare Martin saw that Hymer's eyes were open!

He caught his breath, and with trembling fingers began to loosen the clasps that held the helmet.

He heard a deep sigh. "Hymer!" he cried. "You are not dead?"

"Dead!" repeated the priest; and Martin fairly gasped as Hymer raised himself to a sitting position. "Think you that Odan could kill me?" he asked scornfully.

"I—I did think so," stammered Martin. "I can't tell you how glad I am to find that he has not."

The priest stretched out his great hand, found Martin's, and gave it a crushing grip.

"Englishman," he said, "I would that I had a son like you."

Then, as if ashamed of showing even a trace of his real feelings, he rose to his feet.

"Where is Odan?" he demanded.

"Dead," replied Martin. "His body lies where it fell."

Hymer laughed. It was the first time that Martin had ever heard him laugh out loud, and the sound positively startled him.

"Then we have done that which we set out to do," said the priest. "The King is safe, and my life's work is not wasted."

He stepped forward, and as the lightning flashed again found Odan's body and stood over it.

"So this is the end of all your scheming," he said as he bent over the dead man. "Bitter it must be to fall by the hand of the man you most despised. Yet the souls of the dead cry for vengeance, and the punishment is just."

He turned back to Martin.

"The storm is passing," he said. "We must return to the palace and fetch help. Odan's body must be shown to his followers, and for that reason a bier must be brought to carry it into the city."

"But what about the plane?" asked Martin.

"Trouble not. None will dare lay hands upon it. Let us go quickly."

Martin had learnt to trust Hymer, and the two started away together. The rain still fell heavily, but the wind had dropped, and the storm was passing quickly.

The priest knew every inch of the ground, and, dark as it was, led Martin by a short cut to a gate at the back of the palace gardens. Here he knocked in a peculiar fashion, and at once one of their own guards opened the heavy doors.

The man's face glowed with delight as he saluted Hymer in the Lemurian fashion.

"We feared for you, my lord," he said respectfully.

"Fear not," answered Hymer gravely. "Odan is dead."

The man gave a shout of joy, and, falling at Hymer's feet, embraced his knees.

Hymer raised him. "Lock the gate, Valkar," he said; "then go and inform your companions. And be ready as speedily as possible with a litter and twenty guards. We go to fetch the body of our enemy."

The man darted away. Hymer and Martin went on into the palace.

At the gate they met Akon, his fine face white and drawn with anxiety. His relief at seeing them was touching, for, like the guard, he had not believed they could have survived the tempest.

But when they told him that Odan was dead, he shouted with gladness and rushed away to tell the king.

Like magic the news was all over the palace, and such a din of cheering rose that Martin, who had looked on the people of the island as a grave and solemn race, could hardly believe his ears.

Akon himself went out in charge of the party who were to bring home the body, and in about an hour the corpse of the rebel leader lay in state in the temple.

But by this time Martin, who was almost dead from fatigue, was sound asleep in his bed.

CHAPTER 53

The Wave

Martin, working over the Bat in the big boathouse on the quay, straightened himself, stretched his arms, and looked round over the quiet town and the harbour basking in the hot sunshine.

He turned to the priest who was standing by, translating Martin's orders to the workmen. "I could not have believed it," he said, in a tone of wonder. "Even though you had told me beforehand, I could never have believed that the rebellion would fizzle out like this."

Hymer smiled in his grave way.

Adventures of Augustus and Marmaduke

Augustus said to Marmaduke, "It's very nice to fly."

Said Marmaduke, "We'll make some wings on Saturday and try."

They get some canes, and canvas too, and make some funny wings.

"Now to the cliffs," Augustus said, "we'll go, and try the things."

(Upon their backs they strapped the wings, then to the cliffs they went)—

To fly far out to sea and back was what the youngsters meant.

"One! two! three!" Augustus cried; says Marmaduke, "Away!"

And both boys jump into the air.

Alas! they rue the day.

They fall like stones right in the sea, and scream with all their might;

And with a hook men fish them up in very woeful plight.

Home they go, all dripping wet. Their fathers, standing by, take pegs and hang them on the line, and leave them there to dry.

"They have no one to take the place of Odan," he explained. "If Odan had had a son then all might have been different. Odan, you must understand, had a certain claim to the throne by kinship with the king. Without such kinship none would dare to set himself up. As it is, the malcontents are only too anxious to make amends lest they be deprived of their lands and wealth."

"And what are you doing about that?" asked Martin.

"We are requiring them to repair the damage which they have done, and to pay money to the widows of those killed in the fighting. That is all."

Martin nodded. "The very best thing you could do. Those who have any sense will be grateful to be let off so lightly. Hymer, you ought to be Prime Minister of one of the big countries in Europe."

Hymer smiled again. "I am content," he said. "If I have helped to save my own people, I can die in peace."

He looked at Martin very kindly.

"And you, my son, think you that we can repair this flying-machine so that she will again rise?"

"I'm sure we can," declared Martin. "Why, the work is almost finished! These men are as skilful mechanics as any in England. They need only to be told, and the work is done."

"And when it is done you will fly away and leave us, is it not so?" asked Hymer sadly.

"I must, of course, return to the other island," said Martin, "and I must go to America to pay the debts left by my father. But I shall come back. Be sure of that. I should never dream—"

A sharp cry from one of the workmen interrupted him. Martin turned quickly, and saw the man pointing out to sea.

A great wave as high as a wall was coursing majestically in from the open sea. Even as Martin watched, it reached the land, and broke inwards upon the beach with a sullen, thunderous roar. At the harbour mouth it did not break, but came sweeping up the entrance like the tidal bore on the Severn.

TO BE CONTINUED

NOTES & QUERIES

What does Anglophile mean?

An Anglophile is one who is friendly to England and English institutions and people.

What is an Anglophobe?

An Anglophobe is one who hates or fears England and the English.

What is a Referendum?

A referendum is the taking of a direct national vote on a specific political question.

What is a Tariff?

A tariff in politics and commerce is the schedule or list of duties to be paid on various foreign goods imported into a country.

Five-Minute Story

THE FLITCH OF BACON

There was once an old man and his wife who had tried in vain to win the Dunmow flitch of bacon—a reward only given to the married couple able to boast that they had not quarrelled together for a whole year.

There was not a New Year's morning for twenty years that the good man had not said to his wife, "Come, lass, we'll turn over a new leaf, and stop sparring like cat and dog. A good bit of bacon with cabbage is a tasty dish, and it's a good flitch, the Dunmow, but peace is better than all the bacon in the world."

Then the good wife would fly into a temper, and cry, "Well, if you don't want me to give you a bit of my mind, which I suppose is what you call sparring, see that you don't bring dirt all over my clean floor! Look now. What's the good of spending good money on a doormat?"

Then her husband would chide her for a scolding woman, and so on they would go, until they realised that they were quarrelling before the year was a day old.

But still they lived in hope, and the wife truly tried to curb her scolding tongue and the husband his quick temper.

Then, as everybody knew the old couple's ambition, their failure became a joke.

"Never mind, lass," said her husband, for they were a loving couple, really, in spite of occasional domestic disturbances. "We'll have it yet. Look now, I'll begin this very day, and take off my boots in the porch, so I shan't muck up your clean floor—you're a fine lass with the scrubbing-brush. And when I'm late for dinner, just keep thy tongue still, and punish me with cold victuals."

And not to be outdone in doing her part, Susan said: "You're a good man, John, and I'll keep my tongue still, even if I cut it out. But for mercy's sake don't go spilling pipe-ashes in the parlour—a tidy body can't stand that!"

So the fight began, and it was a hard one too, for Susan was for ever trying to hold in her scolding tongue, and often it almost began to wag when John criticised her cooking or brought the puppy indoors.

And John found it irksome striving not to do the things that annoyed his overworked wife; but he kept to his resolution.

And as the time of their victory grew near, Susan became so nervous that her tongue would get the better of her that she clapped a plaster over her mouth, and kept it closed by force until the hour had passed.

Then they proudly claimed the Dunmow flitch, and gained it, too!

"And it's not the bacon I mind, lass—though it's as fine a flitch as ever I saw," said old Jack, as they went happily homewards—"but now we've learnt to hold our tongues and tempers for a year, we shan't find it hard in holding them for ever!"

And they went home to a peaceful hearth.





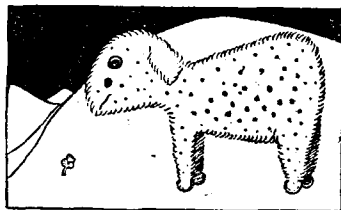
A Merry Heart Doeth Good Like a Medicine



Dr. MERRYMAN

"I paint what I see," an art student once said to his master, complacently.
"Well, the shock will come when you really see what you've painted," said the artist.

The Zoo That Never Was



The Woollywhite

Is it a lamb? Please does it bleat?
It's woolly and it's white;
But it has webs upon its feet.
It's not a lamb—not quite.

The Knott Knitter

John Knott could not knit, so he invented a knitter which would knit, and which Knott called the "Knott knitter."

But the Knott knitter could not knit a knot, and Knott, therefore, had to tie the knots that the Knott knitter could not knit. But one day Knott, while tying knots for the Knott knitter, invented an attachment for the Knott knitter which could knit knots, and which he called the Knott knitter.

When the Knott knitter was attached to the Knott knitter, the Knott knitter would knit the knots which the Knott knitter could not knit. And not a knitter could knit knots like the Knott knitter for the Knott knitter.

There was an old lady of York
Who said she was sure cheese was
chalk,
And she thought veal was ham,
And that treacle was jam,
And mutton she said must be pork.

Poser

If it takes fifteen minutes to fill a bath how long does it take to Philadelphia?

"Oh! Daddie! I'm so happy. I've taken your watch to pieces and put it together again; and there are enough pieces over to make another watch for me."

Is Your Name Lambert?

This name is a corruption of Landbeorht, which is Anglo-Saxon for bright, or excellent, land. Probably some ancestor of yours owned a very fine estate, which was the envy of all his neighbours, and he was known as so-and-so of the fine estate. Then Landbeorht became the surname of his family and was slowly changed into Lambert.

To multiply by 25: add 2 noughts and divide by 4. To multiply by 125: add 3 noughts and divide by 8.

The New Spelling

Pat Murphy and Mike Rafferty were looking at the front of a public building, when Pat pointed to the letters MDCCCXCVII., cut in the stone, and asked what they meant.

"Eighteen hundred and ninety-seven," said his friend.

"Well," replied Pat, "don't you think they are rather overdoing this reformed spelling?"

Do You Live at Liverpool?

Liverpool is thought to mean the "widening of the pool." Many towns on estuaries begin or end on pool, such as Poole and Blackpool.

There was a young man of Dund
Who had shrimps every evening
for T;
He said: "They are prime,
And it's very near time
That I caught a few more from
the C."

Some passengers in a north-bound train were discussing the jumping powers of animals.

"A horse I once had," remarked one, "made nothing of clearing a couple of high hedges with a foot-path between them."

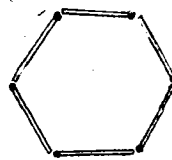
"A little while ago I saw a dead donkey jump as high as St. Paul's Cathedral," said another.

"A dead donkey doesn't jump," said the first speaker, while the other passengers laughed.

"Neither does St. Paul's Cathedral," was the reply.

A Hexagon Puzzle

Arrange six matches in the form of a hexagon, as in our sketch. Now add six more matches to the figure so as to make a hexagon containing six equal triangles.



Solution next week

A Plain Statement of Fact

That that is is that that is not is not that that is not that that is not that that is not that that is.

Can you punctuate the above to read sense?

ANSWERS TO LAST WEEK'S PUZZLES

Dot and Pin Puzzle

The pins are placed on the dots in the following order, reckoning from the top and from left to right. Place a pin in the third dot, line one; the sixth dot, line two; the second dot, line three; the fifth dot, line four; the first dot, line five; and the fourth dot, line six.

Buried Boys' Names

These are the names: Edward, Herbert, Eric, Horace, Ernest.

What Are These Things?

The things shown were part of the dial of a barometer and the jointed rib of an umbrella.

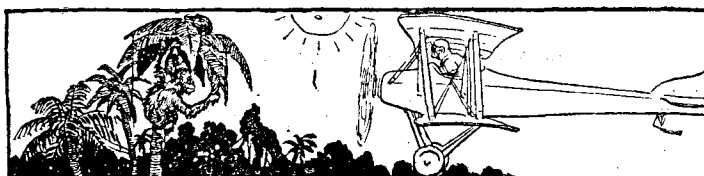
A Cape-to-Cairo Story



"Good luck!" shouted the crowd at the Cape as the aviator rose



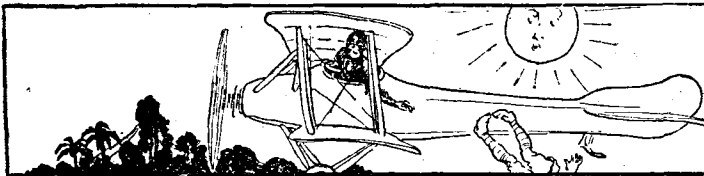
"She does not climb well; I must clear these jungle trees," he thought



"Who can this be," said the chimpanzee, "daring to disturb the jungle?"



In a twinkling he swung on to the fuselage as the plane passed by



"That's the place for you," he said, as they passed over Lake Tanganyika, dropping the unfortunate aviator overboard. "Now for Cairo!"



"Hullo, people! So good of you to come to welcome me." But the good people suddenly remembered pressing appointments elsewhere

Jacko Makes a Bad Hit

"Boys," said the Master, "you may put away your books. I have arranged a picnic for you in the woods."

"Three cheers for Master!" shouted the boys, jumping up with wild yells.

"Cheerio!" screamed Jacko, and he gave Chimpy Junior such a whack on the back that the poor boy shut his finger in his desk and yelled like a Red Indian.

As the Master strode out of the room, in came Cook with the lunch-basket. It was such a monster that the boys took it in turns to carry it. Jacko's turn came last, and he was so excited that he picked it up and ran off with it into the wood.

"Whew! I am hot!" he exclaimed, flinging himself down under a tree. "I should like a drink." He opened the basket and peeped in. On the top was a layer of rosy-cheeked apples. Jacko picked one out, and was scrunching it cheerfully when up came Chimpy Junior.

"Jacko's eating our lunch!" he called out.

Quick as lightning, Jacko picked up a handful of apples, stuffed them into his pockets, and as the boys came running up he climbed up into the tree, and perched himself on a high branch.

"Pig!" yelled somebody. "After him, boys!"

"No, you don't!" cried Jacko. "Take that!" And down came the apples in their faces.

The boys picked them up and flung them back, and in the middle of the battle up came the Master. Unfortunately, at that moment Jacko was taking careful aim at Chimpy Junior. The Master stopped just behind him.

Whizz! Chimpy Junior ducked. Bang! The Master caught the apple right in the eye!

The Nightingale

Some time in the year 1823 a little girl at Stockholm, only three years old, astonished her parents and friends by singing "like a bird." Such a thing was practically unheard of, and steps were at once taken to train the child's voice, a plan into which, though so young, she entered heartily.

She worked very hard at the singing school attached to the Court Theatre, and sang once or twice in public, but at the age of 12 her voice began to fail, and to her sorrow she was compelled to give up singing altogether for several years. She continued to study music, however, and assisted her mother in teaching at a school which she conducted.

The rest did her voice good, and when she was 16 it had recovered all its accustomed beauty of tone, and she began once more to sing in public. Two years later she was taking the leading parts in Grand Opera at the Stockholm Royal Theatre.

She went to Paris to study under the greatest master of the day. He listened to her, and then bluntly told her that she had a voice, but was on the point of losing it through overstrain and exertion. He warned her not to sing for three months, and then to come to him again. The young girl was terribly disappointed, but she exercised patience and followed the master's advice, with the result that her voice was restored, and eventually she became the first singer of the world, and one of the greatest singers of all time. Her powers of acting were as wonderful as her voice. Whenever she went people went wild with delight.

In whatever country she sang she made a fortune, but a large proportion of her earnings were given away in charity. She was one of the most beautiful characters that has ever lived. In America she distributed £10,000, and her English charities included a hospital at Liverpool and the wing of one in London.

A Swedish workman in America, an old schoolfellow, made himself known, and she visited his humble home, and left an envelope for his children which was found to contain a cheque for £2000. She always visited the poor quarters of the towns where she sang, distributing her gifts, and when remonstrated with on the ground that she was being imposed upon by unworthy beggars she replied, "Never mind; if I relieve ten, and one is worthy, I am satisfied."

She settled down in England, where she became Professor of Singing at the Royal College of Music. After her death in 1887 a bust of her was placed in Westminster Abbey. Here is her portrait. Who was she? The man last week was Sir Walter Raleigh.



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BIG BABIES AT THE ZOO. THE PIT PONY. THE GIRL WHO RODE ON A BULL



The girl who rode on the bull. See page 1



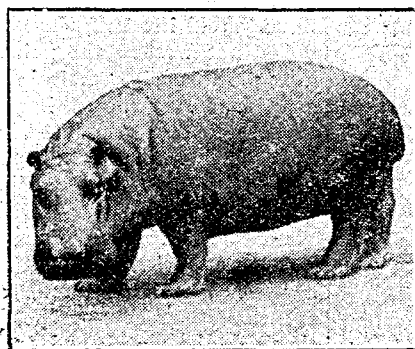
The pit ponies see the sun—Brought up from the flooded mines during the strike



The goose-quill boy of China. See page 7.



Jumbo has a bath at the Zoo



The new hippo at the Zoo



Schoolboy Redskins—A tableau during the Peace celebrations



Water babies at Ramsgate



A Boy Scout chariot at Surbiton



Over the wall and away to the sea



Happy children from the town—a merry group of scholars from a London school enjoying an educational journey to the seaside

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